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THE PIANO-PLAYER AND ITS MUSIC

BY

ERNEST NEWMAN

THE PIANO-PLAYER

LONDON
GRANT RICHARDS LTD.
ST MARTIN'S STREET
1920

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I

A DEFENCE OF THE PIANO-PLAYER

i

For a musician to put in a plea for the piano-player[1] in these days is to make a good many worthy people doubt his sanity or his honesty, or both. My own brief editorship, a few years ago, of a little monthly journal devoted to piano-players and the interests of those who use them brought on me the charitable suggestion that I must be in the pay of a mysterious entity vaguely designated as "the makers," though it had been the policy of the journal from the commencement not to allow its editorial columns to be exploited for the

[1] It is a pity some more elegant and less ambiguous name cannot be found for instruments of this type. The term "piano-player" is sometimes restricted to the old-style cabinet attachment by which the keys of the instrument are manipulated from the outside; and the term "player-piano" to the instrument with the playing mechanism inside. In this article, however, I shall use the term "piano-player" to cover both types.

benefit of this or that maker. Another playful little dodge of the anti-piano-player extremist is to doubt whether anyone who commends "mechanical instruments" can be a real musician. That also one can face quite cheerfully. If to praise the piano-player is to work one's own damnation, one has at least the consolation of being damned in excellent company. Perhaps I ought not to drag in the names of mere composers —such as Strauss, Grieg, Elgar, Scriabine, Max Bruch, Fauré, Humperdinck, Mascagni, Max Reger, Saint-Saëns, Max Schillings, Balakirev, Debussy, Glazounov, Liapounov, Rimsky-Korsakov and Sinding—who have sung the praises of one or other of these instruments. Their evidence may be tainted; these abandoned fellows, together with conductors like Nikisch, Colonne, Chevillard, Landon Ronald and Sir Henry Wood, may also be, or have been when they were alive, in the pay of "the makers." But when we are are told, especially by amateur pianists, that the piano-player is a soulless machine that no self-respecting musician would be seen sitting down to, we may

remind them that some of the warmest commendations of it have come from pianists of the front rank, such as Busoni, Harold Bauer, d'Albert, Backhaus, Carreño, Dohnanyi, Arthur Friedheim, Gabrilowitsch, Mark Hambourg, Josef Hofmann, Frederic Lamond, Wanda Landowska, Pugno, Sauer, Stavenhagen, Szanto, Rosenthal and Leschetizki. Many people will remember, again, a concert at Queen's Hall in 1912, at which the London Symphony Orchestra, conducted by Nikisch, accompanied Mr Easthope Martin in the Grieg concerto, Mr Martin playing the solo part on a piano-player, while later Miss Elena Gerhardt sang some songs to the accompaniment of the maligned "mechanical instrument." In 1913 a similar concert was given in Paris with Chevillard, the Lamoureux Orchestra and a piano-player. It is evident, then, that whatever the average amateur or teacher may think of the piano-player, it is taken seriously enough by the composers, pianists, conductors and singers who stand at the head of their profession. The truth is that the opposition to the piano-player comes

largely from people who have had no practical experience of the best it can do, and from pianoforte teachers who are afraid that their vested interests are in danger.

But from whatever cause and from whatever source the opposition comes, it is futile. The piano-player has come to stay, and not all the contumely in the world will get rid of it now. There are already in England alone some fifty firms engaged in the manufacture or importation of these instruments; and the number is certain to increase. The agents for the higher-class pianos in some towns will tell you that they can hardly keep pace with the demand for them. For good or ill, here is a new factor in the musical life of the country that will have to be taken seriously. Some perturbed musicians see in this enthusiasm for "mechanical instruments" the beginning of the end. My own view is that these instruments can in no circumstances do harm, and that a piano-player in every home—even the musical home, where everyone can play fairly well by hand—would be an unmixed blessing. But before I give a few reasons

for the faith that is in me, let me try to answer some of the stock objections against the new instruments.

ii

The commonest complaint against the non-human piano-player is that it is "mechanical." If the instrument could find voice it might, I think, retort with a *tu quoque* on the pianist or violinist or organist who so describes it. The piano-player, in fact, needs only the kind of defence—which is half an attack—that the lawyers make on behalf of people charged with libel. "My client," says the lawyer in effect, "did *not* say that the plaintiff was a lying scoundrel; but if he *did* say so, it is true. The plaintiff *is* a lying scoundrel, and we can prove it." So the advocate of the piano-player might say: "This is not a mechanical instrument; but if it is, so is the piano, so is the organ, so is the violin, and so is everything else out of which man makes his music." And an ingenious and well-briefed lawyer could, I imagine, make out a very

good case for the piano-player, and take a good deal of the conceit out of the other side.

Does not more than half the progress of the human race consist in substituting machines for human limbs? The plough, rationally considered, is simply a mechanical appliance for digging up the soil infinitely better than the finger-nails could do it; probably primitive man began with his finger-nails, progressed to a bone, then to a pointed stick, and so on to the plough—a step-by-step improvement in mechanics. What is the wheel, again, but a vast multiplication of the strength and speed of merely human legs? What is the gun but a big fist at the end of an arm so many thousand yards long? What is the telescope but a mechanical eye with a longer reach than any human eye?

"Yes," the objector may say, "but these are scientific or utilitarian matters. We quite admit the function and the indispensability of mechanics there. We deny, however, that they have any such value in matters of art." Has he ever gone below

the surface of the question? I am afraid not. For probably thousands of years man has been steadily increasing the quantity of mechanism he uses in order to make music, and the quality of the music has improved with the quantity of the mechanism—the improvement, indeed, only being possible in virtue of this increase. As in most other things, far too much superiority is attributed to nature over science and art. If a man wants a really "natural" musical instrument, free from any suspicion of the mechanical he will just have to whistle with his fingers. If he goes a step beyond that, he calls mechanics to his aid. Wagner fondly imagined that Siegfried, his pure, untutored child of nature, was making nature's own music when he cut a reed and made a pipe out of it. As a matter of fact, Siegfried was using one piece of mechanism—a sword—to make another piece of mechanism—a shaped reed. And even Siegfried himself had to admit that the noise he made on this too primitive machine was horrible—

"Auf dem dummen Rohre
Geräth mir nichts"—

and he had finally to resort to another and better piece of mechanism—a silver hunting horn, made, no doubt, by some Besson of the time.

Where, in truth, *is* the non-mechanical musical instrument? Start with the indispensable minimum—say a few pieces of metal or gut stretched across a hollow piece of wood, and plucked by the fingers. Does man stop there? By no means! The anti-piano-player puritans are always horrified at the substitution of mechanism for the hand of the performer; they miss "the human touch." Well, string instruments have only become as expressive as they are in virtue of this substitution. Man first of all replaced the finger-tips by a plectrum; then he elongated his fingers, and softened the pressure of them, by means of a bow. The history of the best of the single instruments —the pianoforte—is the record of an incessant piling up of mechanism. After all, what is a pianoforte, in essence, but a dulcimer? Why all this elaborate mechanism for the mere striking of a piece of wire? Why not be satisfied with a little hammer

held in the hand? Simply because the complicated mechanism of the pianoforte hits the wires better than the hand could do —is, in fact, an intensification of the human hand, as the wheel and the gun are intensifications of the human leg and arm. The anti-piano-player pianist is, in fact, a million removes from mere nature; he would be helpless without the huge box of mechanical tricks in front of him. In decency and reason, then, he ought to be less vehement against the mechanical piano-player.

iii

Very good, it may be replied; but when all is said, the piano is a piece of mechanism under the direct control of the human being, without whom it is nothing; whereas the piano-player is a machine pure and simple, in that the performer has less to do with the making of the music than the hand-pianist has, and if need be can be dispensed with altogether, as is the case in certain electrically driven instruments.

Well, in the first place we do not admit

that the manipulator of the piano-player *is* merely a mechanical performer. If that were so, all performances of the same work upon the same piano-player would sound the same, whereas we know that they do not. In the second place, it is quite true that in the piano-player the performer is relieved of all obligations with regard to keyboard technique.

But pianoforte technique is not music, but only a means for the making of music. Let us suppose, for the sake of argument, that an absolutely ideal piano-player could be constructed in which every variety of touch-nuance, every shade of feeling that a Pachmann or a Paderewski could effect through his fingers could be effected through the pneumatics. Will anyone contend that such an instrument would be less worth listening to than the pianoforte, *merely* because the hammers striking the wires were impelled from the inside by pneumatics, instead of from the outside by the impact of human fingers on the keys? Some way or other the wires *must* be struck; *if the artistic results were the same*, would it matter

a straw *how* they were struck? Would it not, indeed, be a sheer gain to set free for pure purposes of expression the vast amount of nervous energy that the pianist now has to expend in merely making the notes sound? Technique, let me repeat, is merely a means to an end, that end being to make a number of wires vibrate in the precise way we wish them to. Strictly speaking, technique has nothing to do with music in the artistic sense of the word; it can be acquired by people without a spark of musical feeling in them.

The acquisition and application of technique, then, being in large part a merely physical or mechanical affair, there is no need for us to look down upon those lovers of music—of whom there are tens of thousands—who, having no time to give to keyboard practice, gratefully accept the splendid service the piano-player renders them in this regard.

While we are on this subject of the general artistic status of mechanical music, a little digression may not be quite irrelevant. Some years ago a description was published

in the musical journals of a mechanical violin that had lately been invented. About the same time there took place the first English performance of Strauss's *Festal Prelude*, in which the composer recommends the use of the aerophor by the brass players. Thereupon a certain musical critic was moved to write thus: "If the violin," (*i.e.* as a mechanical instrument), "*a fortiori* every other instrument of the orchestra. Only the other day Strauss, out of pity for the men of brass whom he had set to blow a reverberating blast in his *Festal Prelude*, recommended them to save their breath and use an aerophor—some sort of artificial inflator. Why not assemble all the instruments, couple them up with hammers, rubber bands and aerophors, actuate them with a perforated roll, and dismiss the superfluous sixty or eighty or a hundred performers?"

Why not, indeed, if it were possible? So long as we could get our music of the same fine quality, what would it matter how it was produced? Does it very much matter in art *how* an effect is made so long as it *is*

made, and so long as it is the right effect? In music in particular, are we not always fancying we hear certain differences between this performance and that, whereas the truth is that we only *see* them? Musicians in general, and musical critics in particular, are fond of enlarging upon the differences between this man's playing of the violin or the pianoforte and that man's. I sometimes wonder whether, if we had to hear all our music from behind a screen or in the dark, and in total ignorance of the name of the performer, we could "spot" the right performer in more than one or two cases out of ten. I am not sure, even, that we should always be able to distinguish between the men of the first rank and the men of the second. In the concert-room, if John Jones plays the pianoforte badly he gets the full discredit of his bad playing, because John Jones carries no halo about with him to dazzle us as we look at him and listen to him. But if Pachmann plays badly it probably never sounds quite as bad as it really is—as bad, say, as the same playing would sound in the case of John Jones—

because Pachmann always has his halo with him—that is to say, some of the badness of his performance would be covered up for us by a sort of unconscious incredulity on our part. Any regular concert-goer who will submit his sensations to a rigorous scrutiny will, I think, discover numberless instances in which the sensations of the ear have been confused or overlaid by the sensations of the eye.

So with the piano-player. It is difficult for the average man, when he hears a piano-player, and knows it is a piano-player, to listen with perfect open-mindedness; no matter how hard he may try, the knowledge that it *is* a piano-player that is being operated upon colours his judgment somewhat. He is prepared to hear a "machine," and accordingly it is a machine that he hears. Imagination and visual memory play a much greater part in our auditory perceptions than most people think, as we soon discover when we submit ourselves to a test in which the evidence of the eye is excluded. Strange as it may seem, hardly one person in a score can tell, merely from the tone itself, whether

it is a Strad or a brand-new violin that is being played upon—as was shown by some public experiments in Berlin a few years ago. I am confident that an experiment of the same kind with a piano-player and an ordinary pianoforte, each played behind a screen, would lead to a large number of wrong guesses as to which was which. I know of a case in which some song accompaniments at a public recital were played on a piano-player without anyone suspecting the fact, the instrument being so placed that none of the audience could see the keyboard. I have often heard pianoforte playing at a concert that, if I had not seen the pianist, I should have taken for a mediocre performance on a piano-player; and I have more than once heard, from behind a door, a piano-player performance that gave me no suspicion that a mechanical instrument was concerned in it.

In the light of these considerations let us look once more at the questions of the aerophor, the mechanical violin and the mechanical orchestra. The aerophor is a contrivance for getting the same amount of

tone out of a wind instrument with a smaller expenditure of breath, thus enabling a tuba player, for instance, to hold on to a note for an almost indefinite time. Now let us suppose that the inventor of the apparatus had kept the knowledge of it simply to himself and Strauss, and that the aerophor had been used in the *Festal Prelude* that evening without anyone in the audience knowing about it. Would a single soul among us have been a penny the worse? We should merely have heard a number of long-sustained notes in the brass, for which the music would have sounded much better than when, as at present, the long notes have to be momentarily dropped and then taken up again. What earthly harm would this "machine" have done us? Would it not, indeed, have done us all a certain service? And would any deadly injury have been done us if a similar device had been attached, without our knowing it, to every instrument of the orchestra? Is not the objection to the aerophor simply another instance of the illegitimate interference of knowledge with pure sensation? I used to

know a drummer who got an admirable effect in that one of Elgar's *Enigma Variations* in which the very faintest of drum rolls produces an almost imperceptible throb like that of a great liner. (The Variation is the one containing the quotation from Mendelssohn's *Calm Sea and Prosperous Voyage* overture.) The drummer I have mentioned used to discard his drum-sticks at this point, and tap lightly and rapidly on the edge of the parchment with a couple of pennies. If the conservatives or the purists were to tell us solemnly that a drum ought to be played only with its proper sticks, and that to get a new effect by means of pennies was opening the door to no end of "mechanical devices" in drum music, we should all laugh at them. Why should we not be equally amused when purists hold up their hands in horror at the notion of a tuba player taking advantage of the aerophor to make his breath go a hundred times as far as it normally would? We might as reasonably object to the scientific shaping of the mouthpiece or the curving of the bell of the trumpet or the horn in order to

increase the natural resonance of a vibrating tube of metal. Once more, so long as the effect is got, and it is a good effect, an effect that carries its own justification with it, what in the name of reason does it matter how it is got, by an old means or a new one? Surely even the oldest of the means we now employ must have been new at some time or other. After all, if the aerophor, that economises the breath and so prolongs the tone of a tuba, or a resonator, that increases the tone of a stringed instrument, is a "machine," what is the mute but a "machine" for diminishing the tone and altering the quality of it? By all means let us get the best music it is possible to get; but let us not imagine that we shall improve matters by walking in the mists of illusion and sneering at this device or that device for being mechanical, when every device that is already employed in any instrument whatever is mechanical. What is the cunning key apparatus of the flute, for example, but a calling in of mechanism to compensate for the natural disabilities of the human fingers?

iv

What precisely does the piano-player do? It simply adds, for a special purpose, another five per cent. or so to the enormous amount of mechanism already in the modern pianoforte. The object of this added mechanism is to spare the average lover of music the tedium of passing through a long course of finger exercises simply in order to play the notes. There can hardly be any doubt that this is a highly desirable thing. Not many people have the time to learn to play the piano well, and of those who have the time few will ever be capable of playing artistically. No one with much experience of pianoforte amateurs and of the piano-player can dispute that a reasonably good performance upon the latter is a more artistic affair than nine performances out of ten that one hears upon an ordinary pianoforte. I make bold to say that if we cut out the really distinguished artists of the pianoforte, a good performance upon a piano-player would give more pleasure to a musician than most of the performances he is likely

to hear upon the hand-played instrument. First-rate playing is not so much a matter of technique as of feeling; and no amount of teaching or of practising can give the plain person that. All that the average young lady has done after five or ten years of hard work is to get her muscles into a certain state of flexibility and control. But if all she is to have as the result of all this labour is a technique, surely she may as well trust to the piano-player for that. Delicacy of touch, for example, is an affair of delicate and of instantaneous emotion rather than of muscular practice. But if the ordinary person is to play his Chopin without the super-subtleties of touch that a Pachmann can give to the music, then let us have the performance, I say, upon the piano-player, which, I admit, will not give us a Pachmann's touch, but at any rate will give us a performance more brilliant and more accurate than that of the ordinary person. If all he does is to play the notes with reasonable accuracy, then let us have the notes played with superlative accuracy by a piano-player.

If it be urged that the piano-player cannot

produce all the exquisite artistic effects of a Pachmann, we cannot but agree. But then neither does the ordinary pianist produce these effects. If the objector, in his derision of a "mechanical instrument," means that *no* artistic results can be obtained from the piano-player over and above those of which the instrument is capable in the hands of the least skilled and least musical of performers, then everyone who has more than an elementary acquaintance with the use of the piano-player will disagree with him. There is as much difference between the performances of a good and of a bad performer on the piano-player as there is between the performances of pianists or violinists in general. I grant that there is a great difference at present between even the best piano-player performance and that of a first-rate pianist. No doubt after another hundred years of improvements in these instruments much the same difference will still be noticeable. But already it is possible for a piano-player expert to get much better results from his instrument than most people of an *a priori* turn of

mind would be inclined to believe. I hope I shall not be misunderstood on this point. I am not contending that the piano-player is as good as, or ever will be as good as, an absolutely front-rank pianist; but simply that a good performer on a good instrument can produce, in many works, as artistic an effect as any ordinarily good pianist can do. I say in "many works" advisedly, for there are certain pieces of music that the best piano-player of the present day cannot do justice to, while there are others in which it can make a better show than all but one or two pianists of exceptional powers. If the open-minded reader will go so far with me as to believe that the piano-player is an instrument with more artistic possibilities than it is usually credited with, I will cheerfully concede that it is far from being perfect as yet. But bit by bit, year by year, it will be improved. The instrument of to-day makes one wonder how anyone could ever have taken seriously the instrument of twenty years ago; and our present instruments will no doubt cause the same irreverent hilarity among the musicians of

twenty years hence. Even now the makers could produce an instrument that would be more responsive to what a good musician demands of it in the way of gradations of tone and accent; but, for reasons which I can only hint at here, an instrument of this kind would not at present be a commercial proposition. If the motor that drives the spool with the roll on it were worked by another force than that of the feet, the physical exertion of the performer would be greatly reduced, and a larger number of nuances would be easily under his control. Even with the present system it would be possible to get a greater variety of accents by means, for example, of a double tracker. The theoretical principles of this and other improvements are fully understood; what stands in the way of their practical realisation is simply the commercial necessity of making a sort of universal instrument—one that shall not be too sensitive and too complex for the thousands of plain people who know nothing of music and whose powers of interpretation are limited, that shall be self-contained (it is not every house, for

instance, that has electricity to run the motor) and that shall not be excessively dear. But for all that improvements *will* come one by one, and with each of them the present narrow margin between the human pianist and the "machine" will be cut finer and finer.[1]

I would point out also that it is unfair to make comparisons between the best hand-playing and piano-player playing *until the same amount of time and trouble has been devoted to the latter as has gone to the making of the former*. Apart from the fact that probably not one piano-player user in ten thousand gives as much time to acquiring command over *his* instrument as the pianist does, we have to remember that if the tone is to be as delicately shaded by means of pneumatics as by hand-pressure, we need not only perfect pneumatics, etc., but the same sensitiveness in the performer's feet that the pianist has in his fingers. By

[1] It has been well said by an expert in *The Piano-Player Review* that the ideal instrument would be one that combined all the best features of each of the best makes. At present commercial competition puts this out of the question; we shall have to wait until the patents expire.

our incessantly thinking along them, so to speak, the fingers have become such intelligent and sensitive servants of the brain that the slightest variation in the shade of feeling in the latter is instantaneously translated into a corresponding shade of tone quality. It is done without our needing to will it consciously. But only by long practice can so close an association be established between foot-pressure and tone. Theoretically there is no reason why playing with the feet should not be as capable of all degrees of shading as playing by hand. The ultimate problem is the same in each case—the communication of varying degrees of impact to a wire by means of hammers. The variations in the loudness and quality of the tone can only come from variations in stroke and pressure. Given an absolutely perfectly pneumatic player and a performer with as many different degrees of foot-pressure at his command as the pianist has in his fingers,[1] I can see no reason to doubt that playing in the one case would be as fine as in the other. At present we

[1] In addition, of course, he would have the accent levers.

have neither the ideal instrument nor the ideal performer. It is possible, nay probable, that the ideal instrument will never become a reality; but the inventors will certainly get nearer to it each decade.

II

THE LIMITATIONS OF THE PIANO-PLAYER

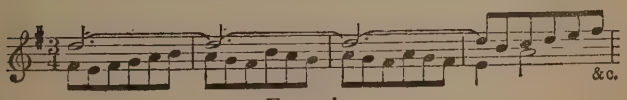
i

It would be idle to deny that the piano-player has its limitations. But again we may retort upon the ordinary piano with a *tu quoque*. One of our complaints against the piano is that it is obviously imperfect as a machine. It would be a very desirable thing, for instance, if we could get a crescendo upon a chord after it has been struck upon the pianoforte. Try to reproduce upon a piano, for example, the crescendo at the opening of Sibelius's *Finlandia*, and you will feel how imperfect the instrument is at present. You will realise painfully that you are "up against" a piece of mechanism the limitations of which prevent you from translating all you may have in your mind into tone. An orchestral conductor listening to a pianist's performance of this passage might with some reason

sneer at it as exhibiting the limitations of a performance on a machine. How much better it would be, again, if we could get some such crescendo in the twenty-first and twenty-second bars of Chopin's B flat minor Scherzo. To the old-fashioned partisan who grumbles at the piano-player for being a machine we can thus make the double rejoinder that in the first place the pianoforte itself is a highly complicated machine which gives its present fine results precisely because the machinery is so complicated, and in the second place, that in many respects one could wish that machinery to be still more efficient. Where the pianoforte falls short of our ideal at present is not in being a machine, but in not being a good enough machine.

Let us not judge the piano-player, then, with unnecessary harshness. Above all, let us beware of attributing failings to it *qua* piano-player that are really part and parcel of it *qua* piano. I have heard pianists, after casually putting the piano-player through some piece that they knew well, complain that long melodic notes were not sustained

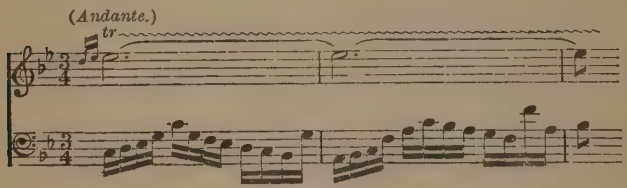
by the instrument for the length of time they should be, and I have had to demonstrate to these people that the piano labours under the same disadvantage. The reason they had never noticed it before in the examples they cited to me was that their *eye* had seen the note in the score, and their imagination carried it on, as the composer intended them to do, after it had ceased to sound under their finger. Anyone can verify this for himself at the next piano recital he goes to. Let him listen solely with his ears, not with his memory, and he will discover that many a hundred minims and semibreves are actually audible for no more time than a crotchet. Composers have always unconsciously trusted to this co-operation of ear and eye. Look, for instance, at this passage from the fifteenth fugue in the Second Part of Bach's "48":



Example 1

You will find that even with the help of the sustaining pedal it is very difficult to make

the D last the full written time without blurring the harmonies, while on an instrument of the clavichord or virginals type it is flatly impossible to prolong the note for a third of the proper time. Bach was trusting to the eye to come to the rescue of the ear. When he has two fingers perfectly free, and wants to give the semblance of prolongation to a note, he writes, after the fashion of his epoch, a trill for it, as in the following example :—



Example 2

The trill, which was a device for assisting the poor sustaining power of the older clavier instruments, fell out of favour with composers when the sustaining pedal of the pianoforte enabled them to strike a note and take the finger from it and still ensure the sounding of the note. But they often forget the limitations of the piano, and write long notes that the instrument simply

cannot sustain for the prescribed time. I venture to suggest, therefore, to anyone who is irritated at the failure of the piano-player to sustain a particular note, first of all to make quite sure that matters are much, if any, better when he plays the same passage with his hands.

ii

An undeniable defect in the present piano-player is the comparative unresponsiveness of the sustaining pedal. As every musician knows, this pedal has to be used with great frequency, sometimes several times in a bar, according to the harmonies. The treatment of the pedal is probably the subtlest, most elusive problem in pianism. There are one or two treatises on the subject, but, useful as they are in many respects, they leave the innermost recesses of the question unexplored. I doubt, indeed, whether the principles that unconsciously guide a fine pianist in his use of the pedal can ever be formulated in words. If anything in pianism is purely instinctive and personal, and quite incommunicable by

one performer to another, it is this. A man is either a sensitive pedallist by the grace of God or not at all. It is not merely a matter of always supplying the basic note of the harmony by means of the pedal in chords where the finger has had to quit this note, though this function of the pedal is important enough. The value of the pedal to the expert musician extends much further than that. All sorts of tone-colours can be obtained according to whether the pedal is depressed at the very moment of striking a chord, the moment before, or the moment after; according to the number of times the pedal is half lifted and depressed again during the continuance of the tone; according to the relaxation or maintenance of the finger-pressure during this operation; and according to a dozen other conditions which occur, in actual playing, without our consciously willing them, and which we find it almost impossible to explain to anyone else. Investigation would show, I think, that half of the beautiful effects—"singing" effects in particular—that are vaguely attributed to a great player's "touch" have far less to

do with his fingers alone than with co-operation of fingers and pedal. The number of possible permutations and combinations must be very large. No one, I imagine, will contend that any piano-player now on the market is more than moderately satisfactory in this respect. The automatic pedalling devices, by means of side-perforations in the rolls, are as a rule so capricious that a real musician fights shy of them. He is in not much better case when he tries to manipulate the pedal for himself by means of the lever provided for that purpose. For one thing, this generally requires such pressure from one of the weaker fingers that the other fingers, controlling other levers, can hardly help pulling at the same time, and there is consequently a failure to control melodic accents as thoroughly as one would like. For another thing, the mechanism operating the pedal in the piano-player is often clumsy and erratic. It seems to take longer to operate the dampers than when one applies the foot direct to the pedal. The mechanism has an irritating way of acting a shade sooner or a shade later than

one has reckoned on; and of course the delicate variations in tone-colour that can be obtained by a rapid coquetting with the foot pedal are here impossible. Altogether the inefficiency of the pedal arrangements in the piano-player has more to do than most people imagine with the "mechanical" effect of the instrument. When the makers provide the good musician with a piano-player pedal that shall be as certain and as sensitive as the foot pedal, *or a substitute for it in the roll-cutting*, he will be able to astonish his friends.

iii

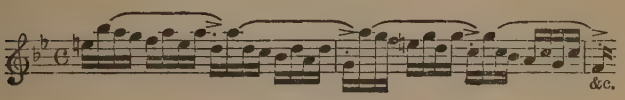
What is usually regarded as the most serious of the limitations of the piano-player —the difficulty of bringing out this or that note, or this or that melodic line—does not greatly worry the expert. A good deal of this sort of criticism, I need hardly point out, is a relic from the days when the piano-player was in its infancy. A number of devices have been invented for bringing particular notes or particular melodies into prominence. It would be absurd to sup-

pose that we have reached the end of the improvements possible in this field; but even as things are now, the piano-player expert who is also a musician, who is operating upon a sensitive modern instrument, and is further helped by a roll that has been cut intelligently, can give surprising independence to one part or another of the tissue of the music.

It is said, again, that the trouble with the piano-player is that it is very difficult to get accents without over-stressing them, because the foot-pressure intended for the melodic note necessarily increases also the loudness of all the other notes that are sounding at the same time. This is not wholly true, of course: there are technical devices that throw salient notes into their proper relief without affecting the other notes of the chord. The instruments are not yet perfect in this respect, and the musician occasionally comes up against real difficulties in the way of accent; but on the whole the matter of accent, in the sense merely of stress, does not trouble him greatly. Still less need he trouble about

accent in connection with phrasing. It has been objected that since phrasing (in the sense of separating the music into sentences) is primarily a matter of accent, and as accenting one note means, according to the enemies of the instrument, accenting others also that are sounding at the same time, phrasing on the piano-player is impossible. But accent in this sense is also impossible on the organ; yet organists and their hearers have always been conscious of the phrasing of organ music, and editors of the old music phrase it in all sorts of ways. On the organ the effect of phrasing is partly obtained by means of clipping certain notes. This clipping can be done also on the piano-player. A great deal of the ordinary pianoforte phrasing, indeed, is effected in this way, not by accent. Especially in the music of Bach and his contemporaries, the musical sentences do not coincide with the bar-divisions, but overlap these; and editors indicate the true sentence-endings by means of ties. Unless the pianist dislocates the rhythm, the only way in which he can suggest to his hearer a division between

two adjacent and equal notes is by snipping a tiny fragment off the first of them, which has the effect of placing a comma between them. For instance:



Example 3

This, as I have said, is how we suggest much of our phrasing when we are playing the piano by hand. The method is perfectly applicable to the piano-player by means of the tempo lever.

But there is another way of securing phrase-demarcation — by an infinitesimal pause between the end of one phrase and the beginning of the next. None but the most mechanical of pianists ever plays a page in absolutely metronomic time throughout. Consciously or unconsciously he is always making these barely perceptible and certainly not measurable pauses between his musical sentences. As a rule it has been done unconsciously, as many a man has discovered when he began to use a piano-player. He first of all found himself becoming

annoyed at the metronomic regularity of the music as the roll gave it him; then he intuitively began switching the tempo lever to the slow side for the tenth of a second when he came to the end of a phrase; then he reflected, and began to apply the method consciously in everything he played. In this way—combined, if need be, with the foot-accent—musical sentences can be adequately individualised on the piano-player.

Yet another device is there for giving vitality to one's phrasing—what is called the agogic accent, which, in its simplest form, consists in the slightest possible prolongation of the first note of a phrase, or of a bar when the phrase goes step by step with the bar lines. Most of us have discovered this principle for ourselves, generally by derivation from singing. We are always unconsciously prolonging certain words or syllables a little when we speak (not "recite"!) poetry. No one with an ear for the realities as distinguished from the mechanics of poetic rhythm would dream of speaking the first part of the line,

"It's oh! to be a wild wind,"

as a metronomically equivalent succession of iambs—

"It's oh! to be a wild wind."

The inner ear of him makes him dwell, be it ever so little, on the "oh." We first of all notice that we do this sort of thing in the speaking of poetry. Then we begin to apply the principle to our singing. When we have the good luck (it is unfortunately very rarely) to meet with a song in which the composer's melody fits the verbal rhythm like a glove, we find ourselves not only phrasing the melodic line as we would speak the words, but dwelling slightly on this or that note, just as, in speaking the line, we would dwell slightly on the word or syllable to which the note corresponds. Listen to a gramophone record of Mr Gervase Elwes' singing of Roger Quilter's *To Daisies* and you will see how that fine artist, who has a subtler sense of poetic rhythm in music than any other English singer of our day, distributes over the surface of the melody a score of just those delicate little time-emphases that anyone

with an ear for poetry would distribute over the spoken lines. This is not the agogic accent pure and simple. It is rather an extension of it. I have made the digression into the wider field to show that many of us, before we had heard of the agogic accent, had discovered the principle of it for ourselves through poetry and the song, and then applied it to our playing of instrumental music. It was only later that we learned that this was part of the secret of the beauty of the phrasing of Joachim and other classical string players, and that a definite tradition of it had come down through the classical school.[1]

Now the agogic accent is well within the

[1] "I had noticed it fairly often," says Mr Fuller Maitland, "in the readings of the great players, without consciously imitating it for myself, or even realising what a part it played in the charm of the general effect. It was my sixth and best teacher, the late Mr Rockstro, who taught it to me as a definite thing, as he had been taught it at Leipzig in the days of Mendelssohn." (A Lecture on "The Place of Interpretation in Music Teaching," delivered to the Music Teachers' Association, at Morley Hall, London, 5th February 1916. I quote from *The Music Student.*) For a fuller discussion of the agogic accent see the Appendix to Mr Abdy Williams' book, *The Rhythm of Modern Music* (1909).

powers of the piano-player. It is delightful to use, and the effect of its intelligent use is to give not only definition but constant elasticity to the phrasing. It is only the semi-musical or the quite unmusical who try to define the accents by a kick at the pneumatics on the first beat of each bar. The agogic accent achieves the definition just as effectively and much more subtly; and it has the further advantage of not forcing other notes into undue prominence along with the melodic note, as we may do sometimes if we rely solely on loudness for accent. In this matter, as in every other connected with the piano-player, the trained and sensitive musician will of course be able to produce the best results. Like all dynamic devices, that of the agogic accent has to be controlled by what we may call intelligent feeling. But the device is open to all; and even those who are not practical musicians will be able to make artistic effects with it, and they will find that their sense of it will be educated in proportion as they practise it.

iv

It is the musician, rather than the plain man, who will be most conscious of one shortcoming in the piano-player as we know it at present. The musician realises the difficulty of giving different power-values to different notes in a chord. It is comparatively easy, in most cases, to make one melodic part as a whole stand out from the rest. But a sensitive musician wants more than this broad differentiation of melodic strand A from melodic or harmonic strand B. He wants to differentiate between the notes of a chord, and to carry on these differentiations from chord to chord as his fancy wills. Playing all chords in solid chunks is an abomination: playing as if only the melody mattered, and all the rest were mere background, is hardly much better from the point of view of the artist. For music—and especially modern music—is not merely melody: it is harmony as well, and the harmony is just as important as the melody. But the harmony is an affair not of invariable but of variable values—that

is to say, the same harmony takes on a different colour according to its height or depth in the scale, and according to the prominence that is given to this or that note in it. Mr Matthay has enlarged upon this point with his usual thoroughness in his book on *Musical Interpretation.* "Every true artist," he says, "unconsciously chooses the colour for every note and every chord he plays. Even in the case of a single octave, three quite distinct colourings can be given in this way; we can either make (*a*) the upper note prominent, or (*b*) the lower note prominent, or (*c*) can give both with equal tone-amount; and octave passages, when thus differently coloured, have quite a different effect musically. . . . Hardly any two successive harmonies are played alike, in this sense, by a true artist or musical person—his sense of *harmonic* values and progressions will unconsciously guide him constantly to make subtle variations of tone-balance of the constituent notes of each chord or harmony." I have pleaded for years for this discrimination of harmonic constituents not only in pianoforte

playing but in choral singing, which, for all the strides it has made in the past few years, is still virtually in its infancy. I used to call the principle by the vague name of "harmonic" playing or singing. Mr Matthay hits upon a more telling description of it: he calls it the "*prominentising* the interesting features" of the harmonic progressions of a piece of music.

This is a problem that will task all the ingenuity of the piano-player makers. It will be difficult to get over the fundamental disability that in the foot we have only one striking force, while in the hand we have five. Of course only a thoroughly good musician will want to, or be able to, play with this harmonic discrimination, for the subtleties of it, like those of the pedal, are personal and incommunicable; but if the makers will put the means at his disposal he will be very grateful to them, and his performances will then, in all probability, dissipate the last prejudice that exists against the piano-player as a mere machine. The solution of the problem will perhaps come not from the manufacturers of the

instruments, however, but from the cutters of the rolls.

V

The great crux, however, is the question of touch. There are two main problems involved here. In the first place, how much illusion is there in our belief that when we play the piano by the hand we actually reproduce, in a form perceptible by the hearer, all the delicacies of tone-nuance that are in our own minds? In all probability the writer of a second-rate poem feels, in the moment of inspiration, an ecstasy quite comparable to that of Keats: inner rapture, inner joy in one's work, are no criterion of its objective value. Is there not, perhaps, something of the same merciful illusion in operation when we play the piano by hand? And may there not be a sort of sympathetic illusion when we watch someone else playing by hand—may not the memory of all the delights we ourselves have felt in translating, as we thought, the most delicate shades of our own feelings into tone mix itself up with our actual

auditory sensations, and give them a temporary emotional gilding that is not theirs by right? Can it be denied, for example, that the passionate gestures or movements of a player or a conductor have something to do with the passion communicated to us by the music? That this capacity for self-delusion exists in pianists is shown by the habit some of them have of caressing the keys of the piano after the tone has been made, though it seems as certain as anything can be that all the subsequent stroking in the world cannot alter the quality of the tone. One pianist, who believes the contrary, asks us "to approach Mr Jessop as he is squaring his shoulders for a projected boundary drive, and tell him that any movement he makes after the ball leaves the bat cannot possibly affect its flight"; or to "turn our attention to Mr John Roberts, who is taking aim for his favourite 'follow-through' stroke, and tell him that after the ball leaves the tip of the cue, no follow-on movement can possibly affect the speed or direction of the ball"; or to "go to Mr Braid, as he is contemplat-

ing a record 'drive,' and inform him that the 'twist' he is in the habit of making subsequent to hitting the ball is the merest affectation, of which all good golfers ought to be ashamed." Well, the sceptic might doubt the proposition even after interviewing these great men. He might argue that their conviction that the after-movement mattered in some way was really no proof that it mattered at all, any more than the orator's fidgeting with his eyeglass—necessary enough to him, no doubt—has any real influence on his larynx. Further, the objector might point out that while a follow-on stroke *is* possible with a golf or billiard ball, it is *not* possible with a piano key. And there are other objections that he might make.

While the question of touch on the pianoforte remains in its present debatable state, we can hardly hope for full understanding of how far it is possible to reproduce all the varieties of human touch with the pneumatics of the piano-player. In Mr H. G. Wells' *Tono-Bungay* someone asks about a piano-player: "Does this thing play?" And the

answer he gets is this: "Like a musical gorilla, with fingers all of one length. And a sort of soul." Commenting on this, an expert in the theory and practice of the piano-player has said: "Nothing can vary the length of the fingers. It follows that they must strike the keys of the piano (or the hammers) always in the same place, and, except for degrees of force, in the same way; and this means that the quality of touch is fixed once for all when the machine is built. That is, perhaps, the most subtle and inevitable difference between the mechanical and the human player: it is the main reason, and may soon be the only reason, why the machine does not equal a really good pianist." [1]

To this an anonymous correspondent of *The Piano-Player Review* rightly objected that the fact that "the striking pneumatics are all of equal length and equal power

[1] Mr J. H. Morrison on "Strong and Weak Points of the Latest Pneumatic Piano-Player," in *The Piano-Player Review*, June, 1913. He adds: "But after all the touch of the ordinary pneumatic piano-player is quite passable; it would be a very superior person who would refuse it a hearing on that ground."

under a given pressure" could hardly be reckoned as a disadvantage to the piano-player, seeing that a large part of the pianist's technical training was devoted precisely to the business of equalising the strength and control of the fingers. "How then," he asked, "when the whole aim of pianoforte technique is to produce equal strength of fingers, can Mr Morrison suppose that the very equality of the pneumatics is the weakness of piano-player touch?" If, as is alleged, the piano-player cannot produce all the varieties of touch-effect that the hand-pianist can, the reason for the differences can lie only in the nature of the pressure applied. If the piano-player's foot, through the medium of the pneumatics, can project the hammer against the wire with precisely the same pressure as the hand of the pianist through the medium of the key, can there possibly be any difference in the quality of the two tones?

The question then is, *can* the piano-player mechanism apply precisely the same pressures as the hand? One school of pianoforte players asserts that the tone is modified by

the sort of touch as well as by the force of touch. The correspondent whom I am now quoting denies this. "I do not believe," he says, "that the clinging touch, the gentle-pressure touch, the clawing touch, or what not, has any effect (except in the mind of the executant) other than the amount of force transmitted to the swing of the hammer. Who does not know that a pianist and an organist both use this varying kind of touch? Who does not know that an organist, when playing a light, rippling kind of passage, uses a lighter pressure on the keys than when ending up a tremendous Bach climax? And yet no one will deny that the same pressure on the organ key for the lighter passage would be equally effective in the heavier one. In this case the difference in touch is so much waste. . . . Only the net force of the swing of the hammer controls the tone, whether the force be the outcome of a stroking touch or a tornado touch."[1]

To this Mr Morrison replied that, as we

[1] *Piano-Player Review*, July, 1913.

all know, "an illusion to the contrary is prevalent among musical people."

How far it is an illusion I do not venture to say. That the mere weight of blow or velocity of impact on the hammer is not the *sole* determinant of tone may be easily proved by depressing and releasing the loud pedal while the key is held down after the stroke; the quality of the tone changes unmistakably. Sensitive players are always unconsciously modifying the tone by delicate manipulations of the pedal; and it is possible that they may have wrongly attributed some of the effects thus obtained to the variety of touch employed.

It is curious how little account is ordinarily taken of the part played by the sustaining pedal in the production of tone-quality. Yet it stands to reason that if the dampers are removed from all the strings while one of them is vibrating, there must be sympathetic vibrations set up in the others, and that these will vary according to how soon the dampers are raised after the impact, whether they are raised once more, and so on. A good pianist is always

instinctively altering the tone in this way. *Per contra*, the modification of single tones by means of the pedal is one of the points in which the piano-player is at present unsatisfactory.

That piano tone varies in respect of quality as well as quantity will hardly be disputed by most people; *that* cannot be illusion. To what then are these qualitative variations due? In an interesting paper contributed by Professor G. H. Bryan, of Bangor University, to *Nature* in 1913, the author, after pointing out the fact that "the quality of the tone, apart from its actual loudness, depends on the relative intensity of the fundamental tone and its several harmonics," went on to say that "differences are noticeable according to whether the same note is struck with a sharp blow or a heavy pressure, and we are thus led to the important question: *are the intensities of the fundamental tone and its harmonics functions of one variable only, or are they functions of two or more variables?*"

This is the point in dispute among both

piano makers and physicists. Professor Bryan apparently inclines to the latter theory, partly as a result of his experiments with an apparatus of his own, which he described in the June number of *The Piano-Player Review*. His paper in *Nature* brought forth some correspondence on the question. One writer opined that "variations in quality must be produced by differences in the time the hammer is in contact with the string. Since the sensitive fingers of a trained pianist will be able to produce an infinite variety of pressure and hit, from the heaviest arm staccato to the merest 'caress' of a key, it is possible to produce very large differences of quality as well as large differences of intensity." And he holds that it is precisely in this respect that the piano-player falls short of the hand-played piano; ". . . it would seem impossible to make any mechanism sufficiently sensitive to be able to produce effects such as those which can be produced by the fingers, just as it may be possible to produce an aeroplane which is capable of marvellous evolutions, while it never attains

the instinctive facility of a bird." Dr Oliver Heaviside said that "it is very probable that some of the complicated touch problems are of a transcendental nature. They cannot be solved by common, rigorous mathematics, but only by my new mathematics"—which is rather discouraging for the mere layman. Dr F. J. Allen would have it that "three variables appear to be possible in pianoforte touch—namely,

(1) The energy of the blow of the hammer.
(2) The duration of the contact of hammer with wire.
(3) The resonance of the woodwork.

Of these (3) ought hardly to count; (1) is admitted by everyone; (2) is in dispute."

Mr W. B. Morton discussed the rival theories of Matthay, Breithaupt and other writers on Touch, raising the question, among others, as to whether the quality of the tone can be spoiled by vibration of the hammer-shaft at the instant of striking the string.

So we remain practically where we have

been for years. It is evident that the problem will never be solved by pianists alone, who are generally unaware of the part played by imagination in their sensations of touch and hearing. It will have to be left to the physicists and mathematicians to settle by experiments in weight and velocity of stroke—experiments from which the personal equation will be excluded. And when the question is decided with regard to the hand-struck key, there will still be no proof that the same effects cannot be produced by the pneumatically propelled hammer. Everyone who has used the piano-player much is well aware that he *does* produce different qualities of tone at different times from the same note, though *how* he does it is generally a mystery to himself, and when he goes back and tries to reproduce the effect that has struck him he finds he cannot do so, because he does not know what the determining conditions were.

III

THE ROLLS

i

EVERY musician who has had much experience of the piano-player will agree that what gives it its bad name is, in nine cases out of ten, the roll rather than the instrument itself. As one looks back upon some of one's earliest experiences of the piano-player, it becomes a mystery how it ever managed to establish itself at all in popular favour, considering how little was done in the early days to help the plain man to interpret his music intelligently. It gives a musician a shudder now to play through some of the rolls that were the only kind of thing it was possible to get ten or fifteen years ago. One would have thought that the manufacturers would have given special attention to this question. They have undoubtedly improved the quality of the rolls in a great many respects, but there are

other improvements that are vitally necessary, and so obvious that one wonders how they could have been so long overlooked.

It is patent, to begin with, that the first thing the performer needs is a thorough grasp of the rhythm of the piece: not only are the rolls issued without bar lines, but the time signature is not even given at the commencement of the roll. The key, which matters comparatively little, is given, but not the time signature, which is of importance. It may be said that after playing through a few bars no one could fail to know whether the music is in 3-4 or 4-4 time. Granted, in most cases; but that argument may be equally well used as an excuse for leaving out the time signature in printed music. Nay, it would be, if anything, rather more excusable in that case. The eye can survey the whole stretch of the printed page, and to a musician the rhythm would declare itself at a glance. But with the piano-player roll we cannot look ahead; and it is folly to let even a good musician begin playing a piece without his even knowing whether the music will unfold

itself in duple or triple time. It necessarily follows that the metronome mark should also be inserted. It is no use replying that there are now devices for indicating on the roll the pace at which the music is to go. In the first place, the roll may be wrongly timed. I have one in my possession so utterly, hopelessly, grotesquely wrong that I have never been able to understand how the mistake has happened. I can only suppose either that the timer has misread the composer's mark of crotchet = 160 as crotchet = 60, or else that when he was timing the roll his motor was suffering from an attack of insanity. Unless the ordinary user of the piano-player already knows the music from the score—which he cannot be expected to do in nine cases out of ten—he can only make utter nonsense of a roll of this kind. A metronome mark at the beginning would help him to get things right.

When I first made this suggestion, a few years ago, a manufacturer who was consulted on the question made the objection that "even if the roll were correctly timed, what

guarantee is there that the motor of the instrument will invariably travel at the correct speed? The roll manufacturer is in the hands of the piano-player manufacturer to a large extent, particularly in the matter of absolute time." Precisely: my complaint is that even if the roll is right—and there are many cases in which it is egregiously wrong—the motor may run too fast or too slow. At present the man who does not already know the piece from the score is bound to go astray in either case. But if the metronome mark were given he could determine the correct *tempo* for himself and set his *tempo* lever as much faster or slower as was needed on that particular instrument on that particular day.

One or two of this manufacturer's comments surprised me. The composer's expression marks, he said, could be quite easily put in the roll, but "up to the present the public has expressed no need for them." And again, "the manufacturer looks at the matter from a commercial point of view"; and he thinks me "ahead of the public demands." But is not the wise business

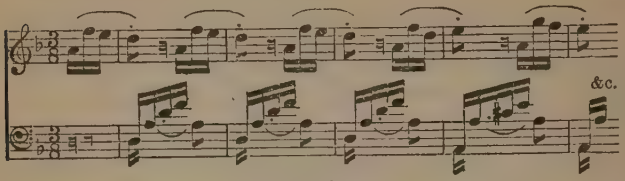
man always a little ahead of the public demands? Is not his ingenuity most surely shown in *making* the public demand a particular article? There is more than one firm at present engaged in the manufacture of piano-player rolls. As there is so much room for improvement in the rolls, I should imagine that the manufacturer who first got rid of some of the more exasperating defects of the present ones would quickly recoup himself for any extra expenditure to which he might be put; for the superior rolls, like the superior instruments, would soon be their own best advertisement.

ii

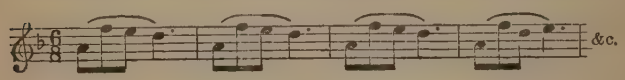
The first thing to do, then, is to make the roll as nearly intelligible as the printed score. I was once told that to insert the bar lines would be to bring the roll within the category of printed music, and so be an infringement of the music publisher's copyright. Whether this is so or not I cannot say. If it is not, the practice should be adopted at the earliest possible moment.

If it is, surely a way could easily be found that would achieve the same practical results without technically infringing the law.

Musicians are so used to having the rhythm of a piece made clear to them by the time signature that they cannot imagine, without practical experience, how the lack of any time signature confuses the non-musician, and how much bad playing it accounts for. The musician can discover this for himself by playing over a roll of which he has had no previous knowledge of the score. Unless the rhythm is unmistakable from the very first, he can easily go wrong for quite a considerable time. A few rapid bars in triplets may be made by the instrument to sound as if they were in groups of twos, or *vice versa*. Even if the instrument is not actually perverting the rhythm — that is to say, even supposing the listener (not the performer) already knows the work and therefore hears it as the composer intended it to be heard—the performer himself may be hearing it quite wrong. Take as an illustration the *alle-*

gretto from Beethoven's D minor Piano Sonata (Op. 31, No. 2)—

Example 4

When the average young lady rattles this off at the end-of-the-term concert at the Conservatoire, she does it in such a way that even in the ears of those who know it it seems to be in the familiar 6-8 rhythm—



Example 5

and that is precisely how it must sound, in many cases, in the ears of the ordinary person who pounds it out on a piano-player without having first learned from the score that the true rhythm is not a duple but a triple one.

If it is essential that the performer should know the main rhythm of the piece he is playing, it goes without saying that he should be informed of any departure from this rhythm that may occur in the course

of the piece. I have known an honest man puzzle for days over the rhythm of a particular passage, unaware, in the simplicity of his soul, that at this point the composer has been malignant enough to insert a single bar of 5-4 time into a work the remainder of which was in 4-4 time. There is surely no reason why any lover of music should be put to such trouble and torture. A good deal of modern music, in which there may be alterations of the time signature every three or four bars, must be utterly incomprehensible to nine piano-player users out of ten. And of course there should be some means of letting the performer know when a momentary change of rhythm occurs by means of irregular or cross accents or syncopation. I remember, in the case of a roll that I had played for some time without any previous knowledge of the score, getting a totally wrong idea of the rhythmic outline at one point owing to a syncopation that the instrument itself could not be expected to elucidate for me. I was amazed, when I came to examine the score, to discover how wide of the mark my mere auditory

impression had been; and I could only offer up a silent prayer for the thousands of people who must get permanently wrong impressions of certain passages from a similar cause.

Of course all marks of expression should be inserted in the roll. At present only the broad changes from loud to soft and *vice versa* are indicated, but for the most part crudely, and not always even accurately. The lines indicating sudden changes of dynamics are very often printed half-a-bar or a bar too soon or too late. In any case mere transitions from *pianissimo* to *fortissimo* are only a fraction of the nuances the composer desires and has indicated in his score. The clue to the interpretation of a passage is often sufficiently given by such marks as *dolce*, *pomposo*, *affettuoso*, and so on; and every one of these should appear in the roll.

iii

Before considering further, however, what the ideal roll would be like in the matter of marking, let us look for a moment at the still more vital matter of the cutting of the roll.

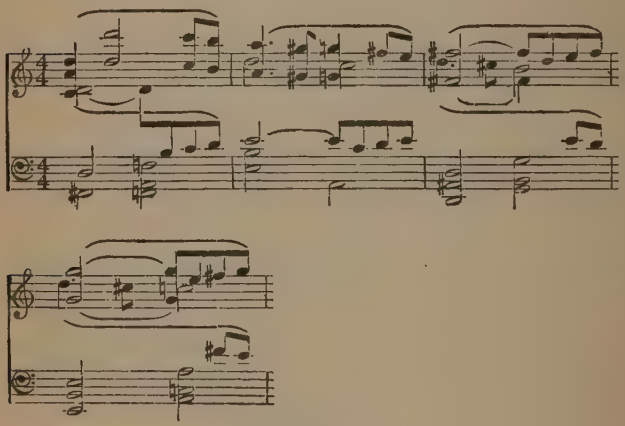
I shall address myself later to the important point of a new school of composition for the piano-player. It cannot be too often insisted on that the instrument is not so much a piano played with the feet (by the aid of pneumatics) instead of with the hands, as a new instrument capable of doing all sorts of things that the ordinary piano and pianist cannot do and will never be able to do. But before we consider the question of composers writing directly for the piano-player, let us examine that of the cutting of the piano-player rolls, for any light we can throw on the latter question will help us to see the other more clearly.

To see how the composers would benefit by regarding the piano-player not merely as another kind of pianoforte but as a new instrument, let us look at some of the dreadful warnings as to the folly of the old point of view that have been unconsciously given us by the transcribers. With key-board music pure and simple the problem offers, of course, practically no difficulties. What the two hands can do the piano-player can easily do (I am not speaking

now of expression; that is an aspect of the case that does not concern us here). Ninety-nine out of every hundred pieces written for the keyboard need only be cut, so far as the actual notes are concerned, for the piano-player as they stand. The only reservation I would make is in the case of some of the older music that is liberally besprinkled with ornaments. Some of these come out so badly that, until some enterprising maker constructs a lighter instrument of the harpsichord type fitted with pneumatics, it might be as well now and then to omit some of these graces. It is when we come to the arrangements of orchestral scores for the piano-player that we see how slow the makers and the transcribers have been to realise the nature of the new instrument they are working upon. There is a curious unconscious conservatism in mankind that makes it cling to an old habit of thought or way of procedure long after the circumstances that brought it into being have passed away. In the early days of electric lighting, for example, the tendency was to make the apparatus resemble oil-

lamps or gas-jets; it was only by slow stages that people came to see that the problem of getting the best out of electric lighting meant acquiring quite a new technique of structure, placing and shading. In countries where stone or brick buildings developed slowly out of wooden buildings, it was long a habit to make roofs and columns suggest a timber formation. A good deal of earlier pottery is worked in patterns derived from the interlacing of wicker in the still earlier kinds of vessel. Musicians will remember how long it took for a genuine instrumental style to develop; the first impulse of composers for instruments was to write in the style that had been shaped by the limitations of purely vocal resources. So it was perhaps only to be expected that the first transcribers of orchestral music for the piano-player should take as their starting-point the already existent transcriptions of the music for the pianoforte. They overlooked one important point, however—that these transcriptions were what they were because the transcriber had to "fake" the music in order to bring it within the compass of two hands.

Look, for instance, at the opening pages of the *Meistersinger* overture—especially bars 71 *ff.*—in the full score and in Otto Singer's arrangement in Breitkopf and Härtel's edition. In bars 71 and 72, Singer, in order to preserve the violin phrase, has to transpose the real melodic line an octave lower than it should be[1]—



Example 6

Here the main melody is shown in the tenor part for two bars; then it passes suddenly to the treble part. Now in the

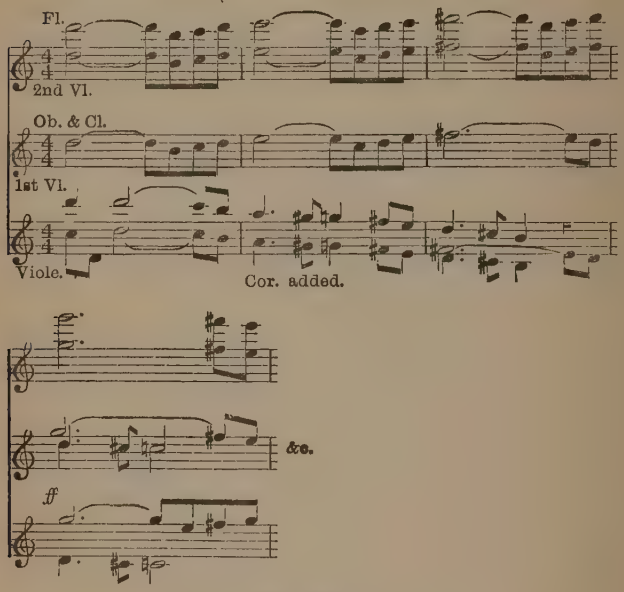
[1] In reality two octaves; but of course on the pianoforte the whole melody is rightly taken an octave lower than the flutes have it.

orchestral score, in the first place the melody does not make this sudden leap from one register to another, and in the second place it stands out all along *a couple of octaves higher* than it is made to do in the pianoforte arrangement. (I may add that in the orchestral score it comes out in octaves.) What appears as the upper part in the pianoforte version is, in the orchestral version, only a counterpoint. The quotation given (Ex. 7) will make the texture of the music clear to those who cannot refer to the full score.[1]

It will be seen that the flutes and second violins, assisted, in the main, by the oboes and clarinets, give out a melody in octaves. It is this melody that, for the moment, comes to the forefront of the picture; it loses its pride of place in the bars that immediately follow the quotation, where the violins give out *fortissimo* the theme

[1] I quote only as much of the score as is necessary to make the point clear. I ought to add that I do not know of any roll having been cut from this particular pianoforte arrangement of the *Meistersinger* overture. But I am familiar with other piano-player rolls that have been cut from a similar pianoforte arrangement, and I am simply taking the *Meistersinger* case as representative of many.

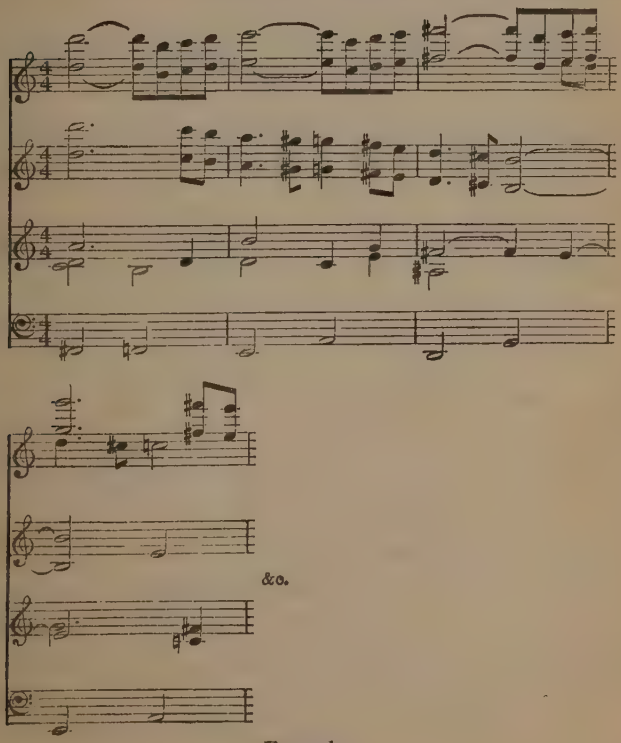
the beginning of which is shown in the last bar of the part for the first violins. The melody given out by the first violins and violas is subsidiary to the main melody—is,



Example 7

in fact, only a counterpoint. The limitations of two hands, however, compel the arranger (or so, at least, the arranger has thought) to place the subsidiary melody at the top and relegate the main melody to

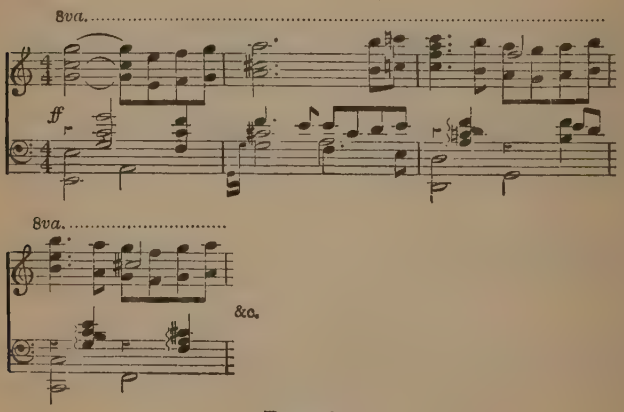
the position of a mere counterpoint. It is obvious that a roll cut from this pianoforte score would, however slightly, misrepresent Wagner. The piano-player arranger need not consider the limitations of mere human hands, and for the piano-player the passage should be cut something after this fashion—



Example

Here the main melody is thrown into proper relief merely by being given out in octaves. The counterpoint takes its proper place as a *descending* melody, and the harmonies appear correctly. (In Ex. 6 they are inverted.) The bass is deepened and enriched, as indeed are the lower harmonies in general.

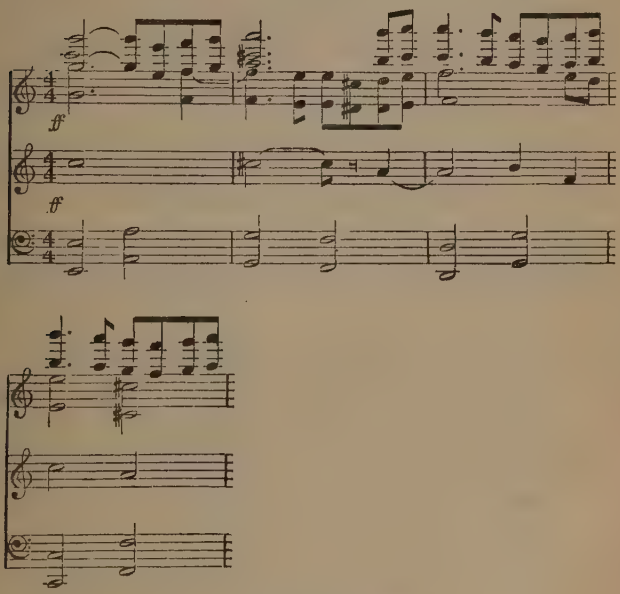
Let us take another example. A few bars later in the same overture there occurs the following passage in the pianoforte version :—



Example 9

Here, by simply following the orchestral score, we can get nearer the effect that

Wagner intended. The soaring effect of the violins and upper wood-wind can be intensified by placing what is the tenor part of the Singer version an octave higher, as,



Example 10

indeed, it appears in the score in the piercing tones of the oboes. It is true that (as in the Singer arrangement) the same counterpoint is given out by the bassoons (and, in part, by the trombone). It is also heard in

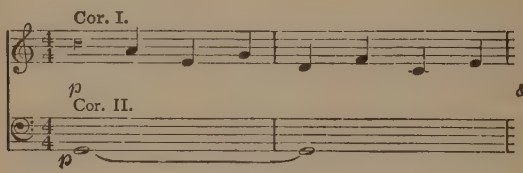
the first violins an octave higher than in the second stave of the last quotation; but there is no need to show it at that height in either a pianoforte or a piano-player arrangement, where it is essential that the main melody shall be thrown into high relief.[1]

Let us look at one or two more cases that show how far the roll-makers are from understanding the nature of the instrument for which they are working. A roll I have of the *Siegfried Idyll* will serve the purpose well enough. This roll has evidently been cut from Josef Rubinstein's two-hand arrangement for the pianoforte; it has certainly never been through the hands of anyone who knew the orchestral score, or at anyrate of anyone who troubled to compare this score with the roll. Rubinstein's arrangement is an excellent one from the pianist's point of view. What the cutter of the roll has forgotten is, among other things, that an intelligent pianist makes considerable use of the sustaining pedal. Now, as I have already pointed out, the management

[1] I have arranged the music in three staves to indicate better the movements of the parts.

of pedal effects is one of the weakest of the features of the piano-player at present. There are devices for letting the instrument, as it were, do its own pedalling; but these are far from ideal. A musician who understands harmony and knows the work he is playing will prefer to use the pedal lever of the piano-player in just the way he would use the foot pedal if he were playing the music by hand. But as far as my own experience goes, the pedal lever rarely acts with the same rapidity as the foot pedal, either in removing or replacing the dampers, with the result that there is always a certain amount of harmonic blurring; while it is impossible to achieve with the finger lever the many delicacies and subtleties that the foot can achieve within a single bar. As yet only the broader effects of pedalling are to be had on the piano-player, and for some time to come, I think, the roll-maker would be well advised to secure as many pedal effects as possible by means of the perforations; in this way the amateur player who knew nothing of pedalling would have the main effects ready made for him, while the

skilled musician would be able to devote more of his time to the difficult niceties of the pedal. But in the roll of the *Siegfried Idyll* of which I am speaking not only is no attempt made to overcome the natural disabilities of the piano-player with regard to pedalling, but the fundamental notes of the harmony are sometimes not even maintained to their proper length. Everyone will remember the passage for the two horns commencing thus—

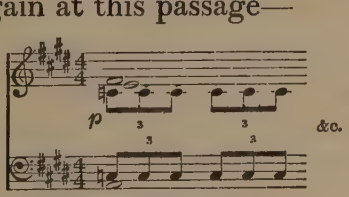


Example 11

The second horn holds the tied semibreve through sixteen bars. It is an effect impossible to reproduce on the pianoforte. If the G is held by the finger alone it gets weaker bar by bar, and soon vanishes altogether. If it is held by the pedal, there results an appalling blurring of the harmony, and no ingenuity in pedalling can quite overcome the difficulty. Rubinstein has

tried to solve the problem for the pianist by an occasional re-striking of the note and a cunning arrangement of pressures and relaxations of the pedal. The roll-cutter ignores all this, and actually cuts the G only the length of the *first* bar, lets it die into silence for some further bars, then cuts it again for a single bar, and so on. The effect is grotesque. At all costs the G should have been maintained, even if it meant the frequent re-striking of it; and of course it should be re-struck often enough to do away with the necessity for maintaining it with the pedal, with the consequent damage to the clearness of the harmony.

Look again at this passage—

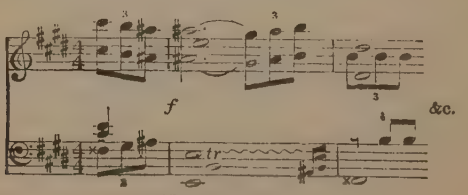


Example 12

where, the reader will remember, the chord is held softly by the strings for the length of two semibreves and a crotchet,[1] while the

[1] To be strictly accurate, in the second bar the lower notes of the harmony are struck out.

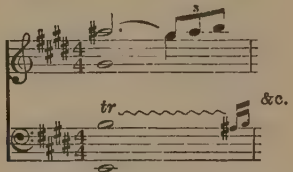
horns reiterate the C four times in triplets, and then six times in quavers with interspersed rests. The *tempo* is fairly slow. Anyone can foresee the result on the piano-player. The chord grows fainter and fainter and ultimately disappears, and we are left with nothing but the tap—tap—tap of the C. It would surely have been better for the cutter to have sounded afresh the harmonic notes in the second bar. But even more certain is it—and this is the point I am leading towards—that here, as in the previous example, we are face to face with one of the fundamental weaknesses of the piano-player, that must be taken into consideration by any composer who wishes to write in accordance with its peculiar technique.

Another defect of the instrument that will have to be taken into account will be seen in the following passage :—

Example 13

I shall have more to say about this passage later; here I simply want to draw attention to the trill in the second bar. Wagner gives it to the violas, and *an octave higher* than it appears in the pianoforte score.

Now a trill in the violas on the B below middle C is a delicate effect, and one that is rendered even less obtrusive by the many timbres by which it is here surrounded in strings, wood-wind and horns. But a trill on the pianoforte—and this is still more true of the piano-player—on the B an octave below this is a very different matter; it is almost unbearably rough. It certainly does not reproduce the effect Wagner intended, and by coming to the front as it does, instead of remaining in the background, it deranges the whole focus of the chord. If the B really had to be cut at this depth the maker of the roll would have done better to omit the trill altogether; but he apparently did not realise that an effect that may be charming in the orchestra may be doubtful on the pianoforte, and quite hideous on the piano-player.

Let us look at this passage a little more

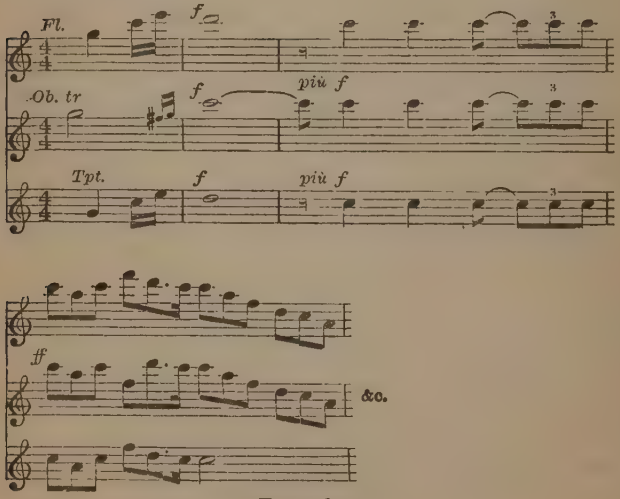
closely, however. In the chord at the commencement of the second bar the semibreve E in the right hand is an addition of Rubinstein's: in the full score the only E is the one in the bass. The harmonic skeleton of the orchestral structure is seen in the following passage :—

Example 14

First of all the melody is given out by flutes, oboe, first clarinet and first violins *in unison*, not, as in the pianoforte score, doubled in the lower octave. This doubling deprives it, and especially the violin triplet, of its proper grace and airiness. Then the G sharp on the fourth beat of the bar is held as a crotchet by the wood-wind, which does not take the triplet of the violins; and this G sharp is doubled *throughout the whole bar* an octave lower in the second clarinet and second violins, and by these latter and the bassoon an octave lower still. It is of

prime importance in giving the chord its peculiar flavour; yet there is not a trace of it in the pianoforte arrangement. But we must not blame Rubinstein. He has done what any expert pianist and harmonist would have done under the circumstances. The G sharp being difficult to manage, he inserts an E, which goes some way towards defining the quality of the chord: he doubles the melody in the right hand because of the instinctive feeling that in the top part alone it would be rather too far away from the bass he has written; and as the B is impossible in its proper place he transposes it and its trill an octave lower. But why on earth all these "fakes" should be reproduced on the piano-player is a mystery understood only by the roll-cutter. The roll could have been cut to play the passage precisely as Wagner has written it. And I fancy that a roll-cutter who understood the difference between a piano-player and an orchestra would not have doubled the triplets in the third bar of Ex. 13. They drown the melodic D sharp, and are altogether too massive. I think the lower B

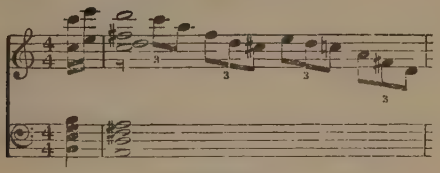
would have been sufficient. These middle timbres of the pianoforte offer peculiar difficulties to the pneumatic instrument, and the prospective composer for it will need to study them carefully.

Let us look at just two more examples from the *Siegfried Idyll* that will illustrate the folly of transcribing an orchestral score for the piano-player exactly as it stands in a pianoforte version. Here is the well-known bird-call from the *Ring* as it appears in the *Idyll*—



Example 15

The trumpet peals out the motive in its original form (as it is in the opera); the flute and oboe have it in an elaborated form. Between them they make a tremendous effect with it. In the Rubinstein arrangement, bar 2 appears thus—

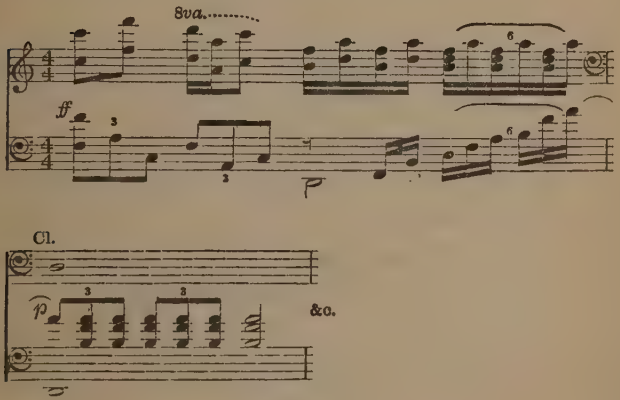


Example 16

The figure in triplets is one given, in the full score, to the first violins alone. The rest of the orchestra maintains loudly the chord of the seventh; the clashing of the D and C (shown more clearly in Ex. 15 than in Ex. 16) is insisted on in the flute, oboes, first clarinet, trumpet, first horn and second violins (in octaves). It is indeed the vital feature of the chord. On the pianoforte the upper part of the chord becomes a diminishing quantity every moment, owing to its height in the scale of tone; it is the violin counter-figure that comes to the forefront. Now the player by

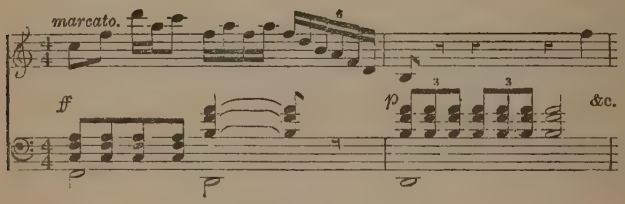
hand has this advantage, that he can use his eyes as well as his ears. He may not hear the high $\frac{D}{C}$, but he knows the notes ought to be there; and, as often happens in these cases, his imagination supplies what is necessary. But the poor amateur, who knows nothing of the *Siegfried Idyll* but what his piano-player tells him, will hear nothing but the clattering violin figure; *this* he will assume to be the *melody* that Wagner wrote, and *this he will tack on to the real melody that is heard clearly enough in the succeeding bars.* For at this point Rubinstein has been mercifully inconsistent. In the third bar of Ex. 15, Wagner repeats the descending violin figure, this time as the *arpeggio* of the chord of the seventh on C instead of on D as before; but Rubinstein omits this second figure. Why then has he inserted it in the previous bar? Merely because he knew that the pianoforte resonance being what it is, the bare chord of the seventh would not fill the whole of the bar; something had to be done to keep the tune going, and he was

glad to find this violin figure ready to his hand. In the succeeding bar, where he has interesting matter enough of another kind, he gives the makeshift violin figure the go-by. The roll-cutter has again followed him blindly in all his omissions and commissions; whereas what he should have done was to have ignored the violin line altogether, made sure, by some means or other, that the top of the chord in bar 2 should have been heard throughout the bar, and given the whole weight of the pianoforte to making the full bird-call tell as effectively there as it does in the orchestra.



Example 17

For another illustration of the mistakes that are constantly being made in the rolls by the cutter slavishly following the pianoforte adaptation of an orchestral score, let us look at the passage (page 95) from the pianoforte version of the *Siegfried Idyll* that immediately follows Ex. 15 and Ex. 16.

This, I think, would have sounded better on the piano-player in this form—

Example 18

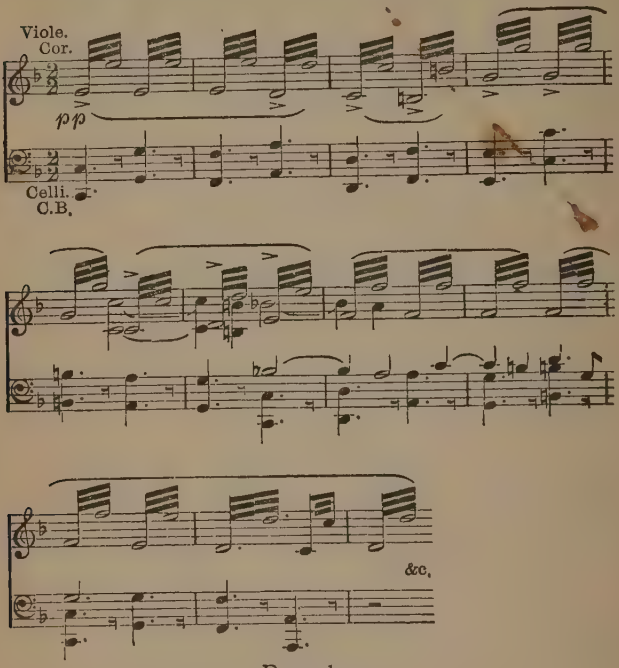
The salient melodic line is that in the violins, as here shown; Rubinstein omits it altogether. What is going on in the flute, oboe and first clarinet is only a sort of excitement. But it is upon this mere *tremolando* that Rubinstein fastens in the second half of the bar; the result is that the flashing violin phrase disappears after the second beat—is lost like a river in the sand. The ascending *arpeggios* in the

tenor in the pianoforte score have no place in Wagner; they are merely Rubinstein's device for procuring extra sonority. Why, we ask in despair, should the maker of the roll reproduce Rubinstein with this dogged fidelity when it would have been equally easy to reproduce what Wagner wrote? The D in the bass, combined with a simple statement, in the inner part, of the chord given out by the horns, bassoons and lower strings, would have been quite sufficient to define the harmony and give it resonance; and against this harmonic background the violin phrase, set free from its wood-wind trimmings, would have stood out with the sharpness of definition that Wagner intended it to have.

Here is another instructive example of the mischief that may be wrought by following a piano arrangement of an orchestral work instead of having the roll cut direct from the orchestral score (page 98). This is a quotation from the piano version of a page of the first movement of Elgar's First Symphony.[1] The theme (the main *motif* of

[1] Pianoforte score, p. 12; orchestral score, p. 22.

the symphony) steals in *pianissimo* in the muted horns. The violas play the same notes *ppp* and *tremolando* for the first six

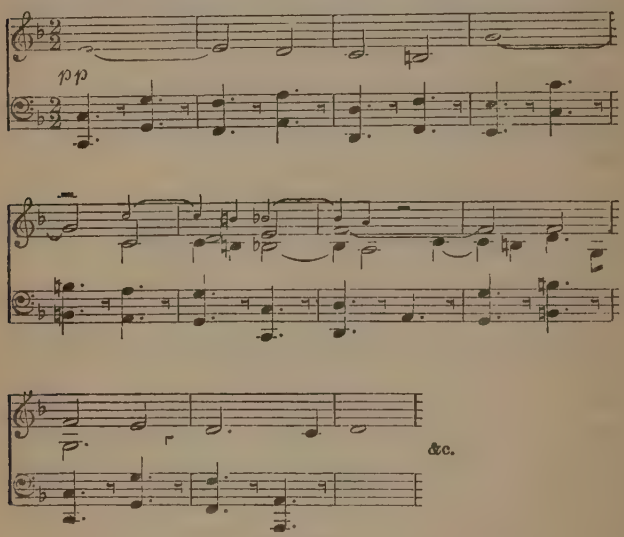


Example 19

bars, after which the violins play it (with the horns), also *ppp* and *tremolando*. All this makes a single melodic line; the harmony also consists of a single part,

played in octaves by the 'cellos and basses. It is the horns that are really answerable for the melody; all the trembling strings do is to add a sort of emotional shimmer to it. The *tremolando* here is a string effect pure and simple; no musician playing the passage on the piano from the full score would dream of attempting to reproduce it; knowing he could not get the *same* effect, he would aim at getting a *similar* effect by means of a very soft, veiled, mysterious tone. The transcriber of the symphony for pianoforte solo first of all makes the mistake of supposing that the effect *can* be reproduced on the pianoforte, and then the mistake of trying to get it by means of an *octave tremolando.* The result is nothing in the least like the one Elgar has intended. Now it is bad enough to have an error of judgment of this kind forced upon us in the pianoforte arrangement; but is there any reason why it should be reproduced in a piano-player roll? Were the roll being arranged for the piano-player by a musician who knew the symphony intimately in the orchestral

original, he would strike out an effect that is not Elgar's at all, but merely his transcriber's, and that does violence to the idea. All that is wanted is a melody played as softly as possible over the simple bass—



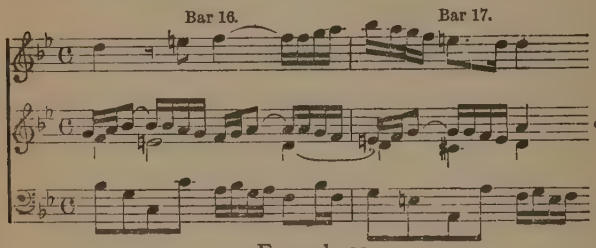
Example 20

In the orchestral score the 'cellos and basses play in minims throughout; but as each of the minims has a staccato dot over it, the piano-player arranger could legitimately, in order to get this effect as nearly as possible, curtail the duration of each note,

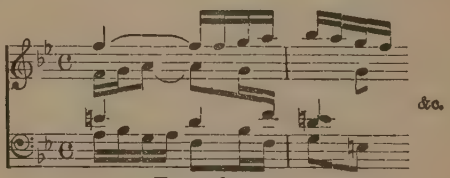
as the pianoforte transcriber has done. In the fifth, sixth and seventh bars he might take his courage in both hands and omit the little counterpoint here shown in small notes in the upper part. The same notes, but in an extended form, are, as will be seen, played by the bassoon an octave lower. The upper line is just an added touch of lovely colour in the flute. In the orchestra this is too faint to interfere with the broad onward sweep of the theme in the horns; the two colours are quite distinct, and that of the horns is much the more powerful. But on the pianoforte both melodies are in the same colour medium, and the flute theme, being at the top, inevitably asserts itself as *the* melody. In a case of this kind the transcriber for the piano-player should omit the flute passage altogether, leaving the horn theme in full possession of the melodic field, with the bassoon adding the requisite touch of harmony and counterpoint at the proper pitch.

Organ music generally has to undergo a little adaptation before it can be made playable by two hands on the piano. Let us imagine a piano-player roll of Bach's G

minor organ fugue that has been cut from Liszt's transcription of it for pianoforte. The pianist's troubles begin as early as the seventeenth bar. In the second manual one of the most familiar phrases of the work is seen pursuing its way thus:

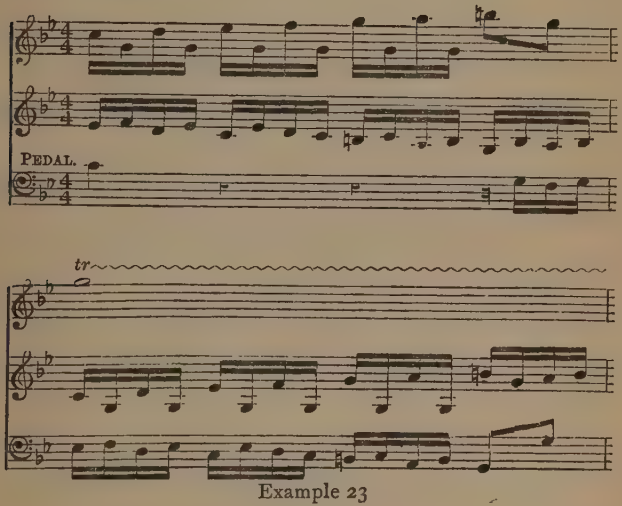


Example 21

But Liszt is compelled to omit a fragment of it at the end of the sixteenth bar and another at the commencement of the seventeenth—

Example 22

and this departure from the original is reproduced quite unnecessarily in the piano-player roll. So it goes on throughout the

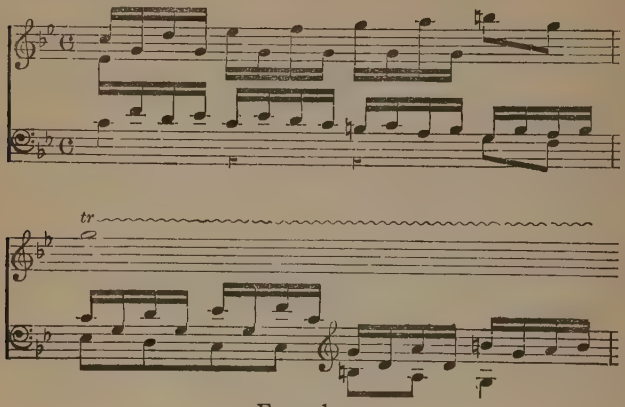
fugue, notes being omitted or transposed into another octave to meet the difficulties of mere human fingers. Here are two typical examples of the violence that Liszt has had to do upon the music. This is the Bach original—



Example 23

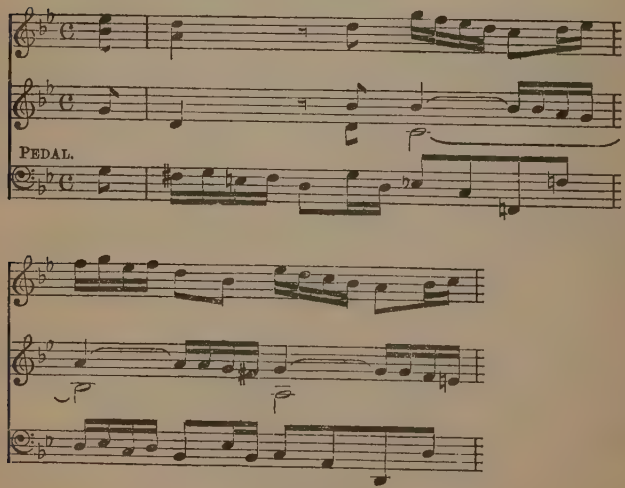
Here the right hand being fully occupied with the shake in the second bar, the whole of the remaining notes have to be taken by the left hand. But obviously no human hand could play them all; so Liszt has to resort to the device of modifying the

characteristic figure given by Bach to the pedal—



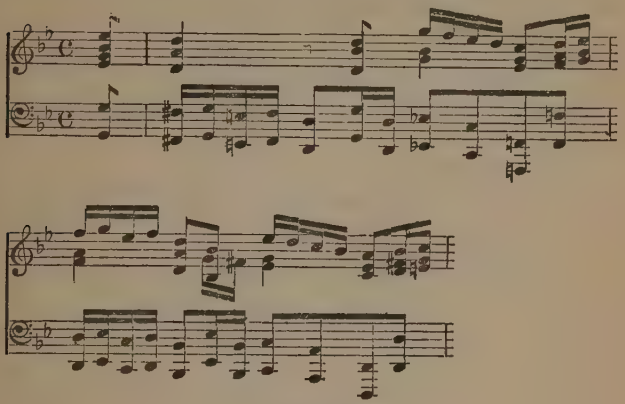
Example 24

In the following instance—



Example 25

Liszt has found it nesessary to omit the minims that are so essential to the harmony. His inadequate version runs thus—



Example 26

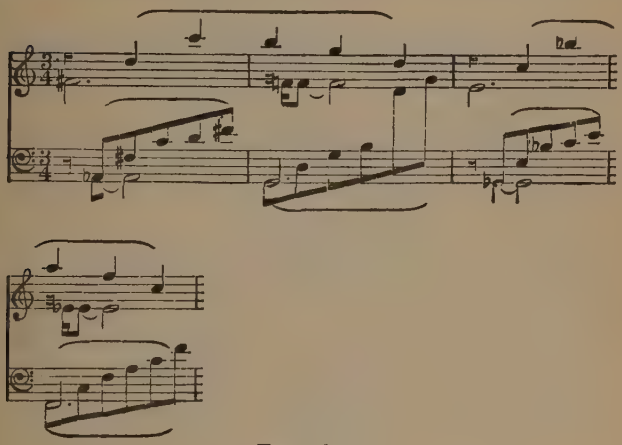
iv

The foregoing examples are a few cases out of a thousand that might be quoted of organ or orchestral music being weakened by the necessity of considering the limitations of two hands when transcribing the music for the pianoforte. I have tried to show that a great deal of music of this kind has been put before the user of the piano-player in a misrepresentative form, simply

through rolls having been cut for the instrument from a "faked" pianoforte arrangement instead of having been thought out afresh in terms of the piano-player. Since the instrument will, within reason, play anything that is asked of it (there is a limit, of course, to the number of notes that can be sounded simultaneously with effect), the hand pianist should be completely forgotten when music originally written for a larger medium than the pianoforte is being cut for the piano-player. I would even go so far as to advocate an occasional slight alteration of the text in the case of pianoforte music pure and simple. Now and then a composer sets down something that he obviously would not have written in that form had the human hands been capable of just a little wider stretch. Here is an illustration (page 107) from Granados' *Goyescas*.

Why has Granados written a semiquaver rest at the commencement of bars 2 and 4? We may be pretty sure that it was only because the F natural in the one case and the E flat in the other cannot be reached by the thumb of the ordinary human being so

long as the little finger remains on the treble notes; the only way of playing such an interval is for the little finger to relinquish the other note after striking it, leaving the



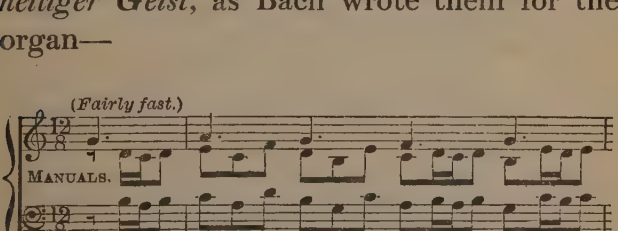
Example 27

continuance of it to the pedal; and this, of course, delays the thumb for a second. In a case of this kind, would very much harm be done if the arranger of the work for the piano-player were to ignore the semiquaver rests and write the F and E flat as dotted minims? The full resources of the piano-player will never be utilised, the real nature of

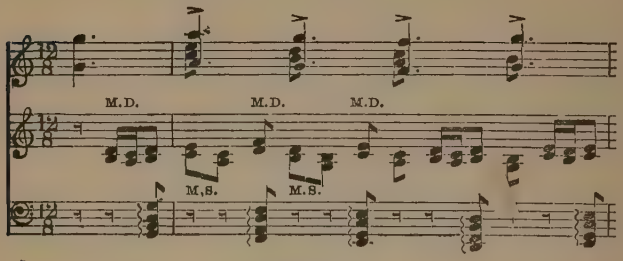
the new instrument never brought out, until composers learn to write direct for it as they do for any other instrument. The bolder modern pianists have unconsciously prepared the ground for this development by their arrangements of Bach's organ works for pianoforte solo. Some of these arrangements seem, at the first sight of the score, to be unplayable by two hands, so many notes and such spacious intervals do they contain. The art consists in raising now this hand, now that, for the moment, in order to take up a chord or a note at a distance.

To all intents and purposes, the pianoforte on which Busoni plays is a more complex instrument than the one Liszt played on; or, to put it in another and perhaps better way, the pianist's hands have developed at least fifty per cent. in capacity between Liszt's time and Busoni's. It is simply a matter of so arranging the music that the hands seem to be playing more notes, and more widely spaced chords, than a pianist of half-a-century ago would have thought possible. Liszt had an inkling of what

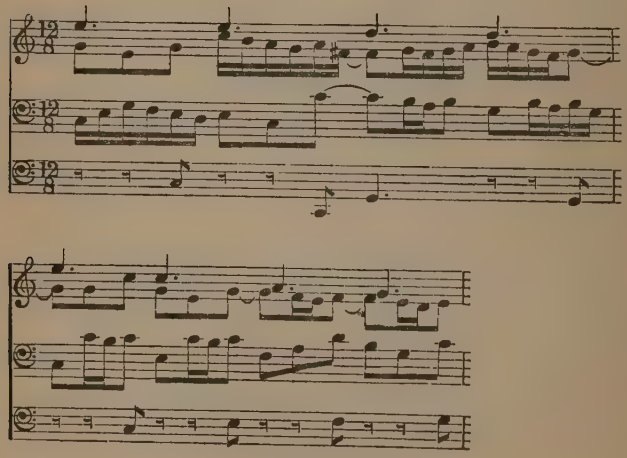
could be done in the way of "orchestrating for the pianoforte," as he called it—arranging orchestral works for the piano so as to suggest, in some degree, the varying colours and masses of the original, or writing direct for the pianoforte in such a way as to suggest the variety and resonance of the larger medium. But Liszt's "pianoforte orchestration," compared with that of a Busoni or a Szanto in the matter of Bach arrangements, or that of an Albeniz in the matter of piano-writing pure and simple, is as the orchestral scoring of Beethoven compared with that of Strauss or Elgar. Here are the first two bars of Bach's chorale prelude *Komm, Gott Schöpfer, heiliger Geist*, as Bach wrote them for the organ—



Example 28

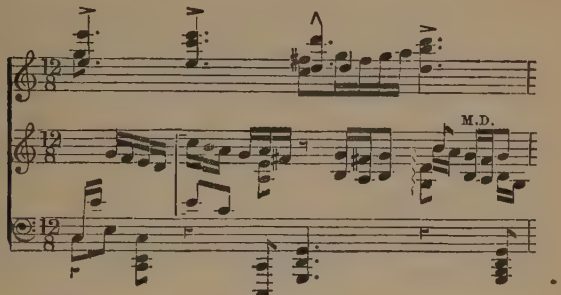
and this is how they appear in Busoni's arrangement of them for two hands—

Example 29

Here are a couple of later bars from the work—



Example 30

and here Busoni's transcription of the first of these bars—



Example 31

These quotations will give an idea of Busoni's method, which is to come as near reproducing the organ fullness of tone as the pianoforte will allow him, by doubling melodies, transposing them into higher or lower octaves, filling out the single pedal notes into closely packed chords, and so on. Purists may object; but most musicians will look indulgently and admiringly on these transcriptions. It would be different if, as in the case of a picture, restoration or retouching meant the destruction of the original. But Bach's original is always there for us when we want it. What Busoni has done is simply to translate this

original into another language. Now in translating from one language into another no intelligent man goes the way of blank literalism. He has regard to the genius, the idiom of the second language. The question before him must always be: "How would the author have said this particular thing if he had been saying it in the first place not in his language but in mine?" That is the question Busoni has asked himself. "The organ is the organ, and the piano is the piano," we can imagine him saying; "the genius of the one instrument is so different from that of the other that in many cases it is absurd to translate literally from the one to the other. This chorale prelude is a case in point. I ask myself how Bach would have tried to convey the majesty of his thought and the exuberance of his feeling on this occasion had he been writing not for the organ but for the modern pianoforte. The organ has a certain weight and power inherent in it, purely *qua* organ. Play on the pianoforte the notes that Bach has written, and nothing but these notes, and you get only a pale shadow

of Bach's idea. Had he been trying to convey that idea on the modern pianoforte, *this* is how I can imagine him doing it." Whether we agree that Busoni's arrangement *is* precisely what Bach would have written does not matter in the least for our present purpose. All I am concerned to establish is the principle that in musical translation, as in all other translation, we must always bear in mind the nature of the second language: we must use its peculiar resources to the full, and refrain from doing anything that is flatly contrary to its own genius.

V

That is what the modern transcribers of Bach for the pianoforte are doing in their own way. Modern composers for the pianoforte are doing it in theirs. They are ceasing to think of the piano as a mere black-and-white medium, so uniform throughout that the same sets of chords will have the same effect in every register. They are realising—taught by Chopin, Liszt and Schumann in the first place, and by the modern Spaniards, French and Russians in the second—that

there are really a great many different timbres even in the apparently uniform black-and-white of the piano, and that a vast variety of effects can be obtained from the combination and isolation of these. Piano composers no longer think of their medium as an abstract one, as Beethoven generally did. Beethoven's writing for the piano (I mean, of course, technically, not imaginatively) might often be that of a man who had never actually heard the instrument, but simply wrote for it as he might have done for any theoretical instrument of the same compass. His *arpeggios* are sometimes crude to the verge of the horrible; or he will leave a space between his treble and his bass so great that the two positively sound out of tune with each other.[1] No modern composer for the pianoforte thinks of the instrument in this primitive way. Consciously or subconsciously, he treats it as a collection of timbres; see how Ravel, for instance,

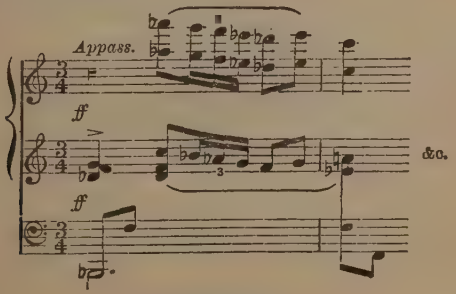
[1] No doubt owing to the bass notes throwing out upper partials that are discordant with the melody, and there being no inner mass of tone to temper the effect to the ear.

exploits the glassy timbres of the upper register in his *Jeux d'Eau*. The two extremes of the keyboard are now beginning to be used for practically the first time: for most of the older music two or three octaves could easily be sliced out of the piano without the music suffering at all. The reason for this is obvious: composers have been fettered in their thinking for the piano by the limitations of the piano technique of their day. There has been a constant action and reaction between the two during the last seventy or eighty years. The beginnings in these matters, of course, are always with the composers. The man of genius puts on paper the notes that represent his new vision. He is told by the executants that the notes are unplayable or unsingable; so it was three-quarters or even half a century ago with Wagner; so it has been in our own day with the English writers of part songs. Then the executants find that the thing *can* be done. They develop a new technique of their instruments. This new technique becomes in its turn the ordinary foothold of the composer, from

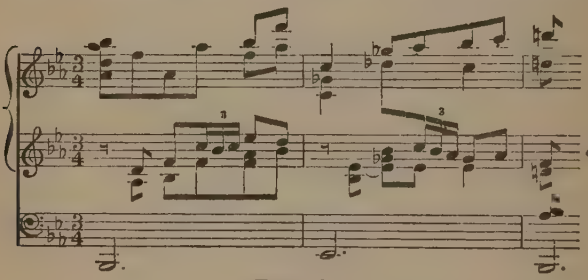
which he reaches out again to effects never dreamed of before. The players or singers again protest that the thing cannot be done, but end by doing it; and so *ad infinitum*. It is not merely that the composer's new demands lead to a new technique of execution: this new technique places at his disposal resources that stimulate his imagination to new visions. Out of Chopin's love for fullness and richness of tone was born the Chopin left-hand *arpeggio*, which spread the harmonies over two or three octaves instead of their being restricted to one. The Chopin *arpeggio* became in time a device that any musicaster could use as well as he; and then the masters—Granados, for instance—began to extend the harmonic resources of the *arpeggio* as Chopin had expanded the harmonic resources of plain chords.

vi

It is no exaggeration to say that the whole technical evolution of modern pianoforte music has been—unconsciously, of course, on the composer's part—towards the piano-player. The secret of it all has been

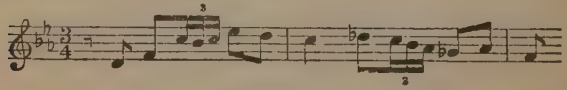
the desire to make the pianist forget that he has only ten fingers. Wonderful results have been achieved; but whatever marvels the ten fingers are made to do, they still remain only ten, and the limit of their powers must be reached before long. The kite is sent to a height that the older practitioners would have thought impossible; but—it still remains tethered to the ground. It is the pedal, as Chopin foresaw, that makes possible the present expansion of harmonic resources on the piano. But it is evident that so long as we are dependent upon the pedal for the wide spacing of our chords, our harmonic scheme is bound to be restricted. By cunning massing and spacing of the notes we can get quasi-orchestral effects, as in the following passage from the *Goyescas*:—

Example 32

but obviously the passage of the left hand to the middle part of the keyboard is made possible only by the foot sustaining the low B flat by means of the pedal, and, willy-nilly, Granados' harmonic thinking is conditioned by this necessity. He is committed to that bass for as long as he keeps the left hand adventuring elsewhere on its own account. His difficulties are even more evident in the next illustration (also from the *Goyescas*)—



Example 33

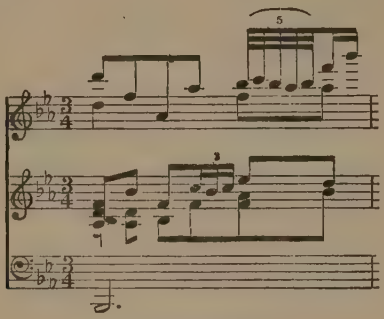
The melodic line to be brought out is as follows:—



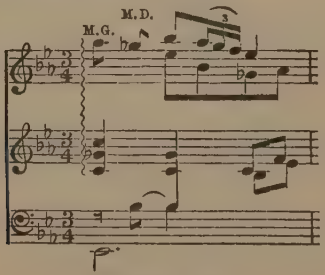
Example 34

Granados has here unconsciously lighted upon what will be one of the strong points

in the technique of the piano-player composition of the future—the power to phrase a melody in the rich middle register of the pianoforte, with supporting harmonies below and decorative lines above it. But see how the necessity for never losing sight of the limitations of the fingers hampers him. In the bass he can venture upon no more than a single note at a time, because the holding of it has to be left to the pedal. At the commencement of the second bar, the change in the harmony necessitates the striking of a new bass note. The left hand being needed to do this, the right hand has for the moment to take up the melody, which can be entrusted to the left hand again as soon as the pedal can take over the bass note as before. But this temporary necessity for bringing the right hand down for a moment to do the left hand's work compels Granados to abandon his upper counterpoint at the commencement of the second bar. From a limitation of this sort the writer for the piano-player would be free: the instrument could keep both melody and counterpoint going to any

extent. In the next bar Granados, in despair, has to write a passage that is simply unplayable by human fingers precisely as it is written—

Example 35

It is impossible to play the first chord in the two lower staves except as an *arpeggio*. In the next bar Granados has to resort to the usual contortionist tricks to get his quasi-orchestral polyphony—



Example 36

The right hand, which has been high up on the keyboard (as shown in the last bar of the preceding quotation), has suddenly to jump down to the first chord shown in the middle stave in the last example, because the left hand has to strike the fundamental E flat; the moment the left hand has done this it has to fly above the right hand and take the high A flat, which is the first note of the melody of this bar. No sooner has it done so than it has to descend again to the middle stave, leaving the continuation of the melody to the right hand. Hence the *arpeggio* in the opening chord, and the quaver rest in the tenor part of the lowest stave.

vii

All these agonies of soul and of body are spared to the user of the piano-player in arrangements of pianoforte music for his own instrument. And since the performer need not consider them, why should the future composer for the piano-player do so? For we may take it as certain that

as soon as our pianoforte composers become thoroughly used to the piano-player they will write direct for it; and then a new school of composition will arise. Already one feels that composers even on the present lines would be well advised to take some of their new works to the player-roll manufacturer rather than to the ordinary publisher. Modern pianoforte music approaches nearer every day to being unplayable except by a virtuoso. It is bound to do so, for composers know now the enormous possibilities of sonority in the instrument, and they will not allow mere technical difficulty to stand in the way of their getting the effects they want. But the inevitable result is—and matters can only become worse in the future—that some of the finest and most characteristic music of our day must remain unknown to all but a skilled pianist here and there. The great public pianists are not so conservative as they used to be—we do get from them now, as a rule, something more than the conventional programme that used to begin with the inevitable Bach prelude and fugue, go on to the

inevitable Beethoven sonata, from there to the invariable half-dozen pieces by Chopin, Schumann and one or two others, and end with the inevitable Liszt rhapsody. For all that a great pianist like Paderewski, for example, has done to spread a knowledge of the music of his own day, he might almost never have existed. Matters are a little better now; but it will always be hopeless to look to the "star" pianists to keep the public abreast of new developments. A few experts play the newest things for their own domestic pleasure; but the average pianist cannot give sufficient time to them to master them, and the plain music-lover, unless they are obtainable in a piano-player roll, can know no more of them than of the newest products of Chinese poetry. So it is not improbable that some day it will strike a composer that instead of selling his new work to a music publisher, to be printed at an almost prohibitive price, and to sell at the rate of a dozen copies or so per annum, with the dim prospect of reproduction in piano-player form a few years later,

when knowledge of the work has slowly filtered through to the public, it would be better for him to take the work in the first place to the player-roll publisher, with whom he will be pretty certain of a larger sale than if he had brought it out through the ordinary publisher.

When that practice is well established, composers will gradually begin to realise that the piano-player offers them ten times the scope that the pianoforte does; and the effect upon the art of composition ought to be enormous. Everyone who has heard the organ in combination with the orchestra must have longed for the introduction into the ordinary orchestra of some of the loveliest of the organ stops. Suppose that to-morrow a manufacturer were to announce that he had a dozen new instruments reproducing these organ stops exactly, that the instruments were so cheap as to be within everyone's means, and that the technique of them could be mastered in a few weeks. We can imagine the almost instantaneous effect upon the art of orchestration. Not only would the new tone-

colours be blended with each other and with the other instruments of the orchestra so as to produce ravishing colour schemes hitherto undreamt of, but—which is of still greater importance—the imagination of the composers would be stirred to all kinds of new visions. An orchestral composer who understands his business does not simply conceive melodies for an abstract instrument and then allot them to the oboe or the clarinet, the cor Anglais or the 'cello. He conceives the melody from the beginning in terms of a particular instrument; and, whether he knows it or not, the quality of the instrument will, if he be a genuine master of his craft, affect the nature of his thinking. Had the cor Anglais never been invented, we should never have had that wonderful melody in the prelude to the third act of *Tristan.* Wagner would not have thought of it just the same, giving it, however, to the clarinet or the 'cello. He simply would not, could not, have thought of it at all. He began with a general sense of the cor Anglais timbre in his mind as corresponding most closely

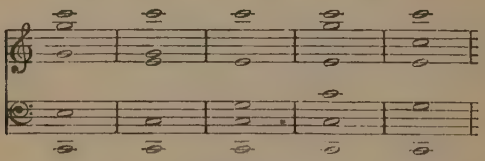
to the devastating melancholy of the scene upon which the curtain is to rise: then the instrument, we may almost say, wrote the melody itself. Had it been conceived in terms of the clarinet it would have had quite other contours, and would have exhaled a quite different kind of melancholy. Had the viola and the 'cello lacked some of their upper notes, we should never have had some of the most characteristic of Elgar's inspirations. Had the device of "stopping" notes upon the trumpet and horn never been discovered, we should not merely lack to-day a few hundreds of fine effects, but composers would never have developed their present insight into some of the more mysterious aspects of nature. If it is true that the imagination directs the instrument, it is emphatically no less true that the instrument prompts the imagination.

viii

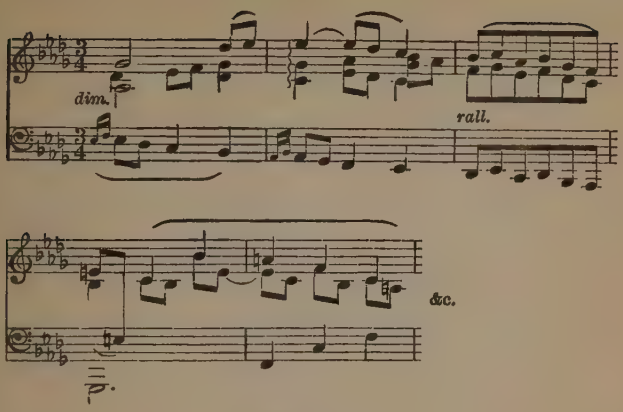
Once the piano-player was recognised, then, not as a mere pianoforte played by

pneumatics instead of by the fingers, but as a new instrument with extraordinary possibilities, the imagination of composers would be quickened and expanded as it always has been when a new musical instrument has come to their hand. They need no longer think of what the fingers can or cannot do. They will be able to write down, with the certainty of getting it, any effect that their imagination may conceive. At present they cannot do that. We know that even under the present conditions the piano is capable of a surprising number of effects of timbre. Brahms achieved some novel and fascinating results in the admirable but still far too little known piano works of his later years. Debussy and Ravel have made the piano scintillate. Scriabine has given it the sheen of satin. Granados has given it the texture, the colour, the savour and the bloom of a luscious fruit. But always, for each of them, there have been the ten fingers to consider.

The piano-player will not merely allow the composer to write with an utter dis-

regard of digital difficulty. That freedom counts for a good deal, of course; but if this were all that the piano-player could do for him it would be hardly worth considering. Much more important is it that the piano-player offers him unlimited choice as to groupings and spacings. Here are a few spacings of the chord of C major, not one of which is possible to the hands, and each of which has its own peculiar sonority—

Example 37

This is the merest sample of the thousands of new sonorities that could be educed from the piano-player by the composer who thought in terms of the new instrument instead of in terms of the old pianoforte. Occasionally the pianoforte composer shows a fine sense of the effect that can be made by skilful grouping; in the following passage from the *Goyescas*, for example—



Example 38

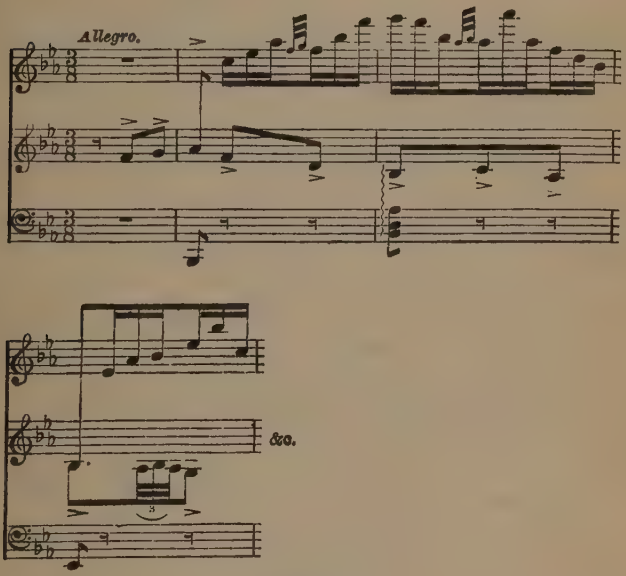
where a peculiarly rich, organ-like effect is made by writing mostly in three parts only, with, as in bar 3, the bass widely separated from the upper parts, which lie in the "plummiest" register of the piano. Any addition to any of the parts would spoil the beauty of the colour effect. Granados' tone-masses here lie easily under the fingers, but there are thousands of possible mass-groupings that would not, though all of them are possible on the piano-player.

The new instrument, again, would obviously be able to extend the *arpeggio* principle as much beyond any of the moderns

as they have been able to extend it beyond Chopin. The *arpeggios* could be built up in chord-formations quite beyond the capacities of the fingers; and, of course, the composer would no longer be harmonically fettered in his *arpeggios*, as he often is now. In place of the stereotyped solitary bass note with its series of *arpeggios*, the basses and the *arpeggios* built upon them could have a mobility, a speed and a range of which composers in this genre have at present hardly a notion.

Hitherto, from the necessity of considering the limitations of the human hands, the pianoforte has mostly been regarded as a two-dimension medium of tone. The right hand and the left hand have each done their best, and that has been the end of it. Now and again the medium has been tentatively regarded as of three dimensions; into this category fall all the pieces that have an inner melody picked out against a bass on the one side and superimposed chords on the other. Rubinstein's well-known little melody in F major, his Barcarolle in G minor, and Schumann's *Romanza* in F sharp major are

simple examples of the genre. Granados, as usual, has extended the scope of the device, as in the following passages from the first of the *Goyescas*:—

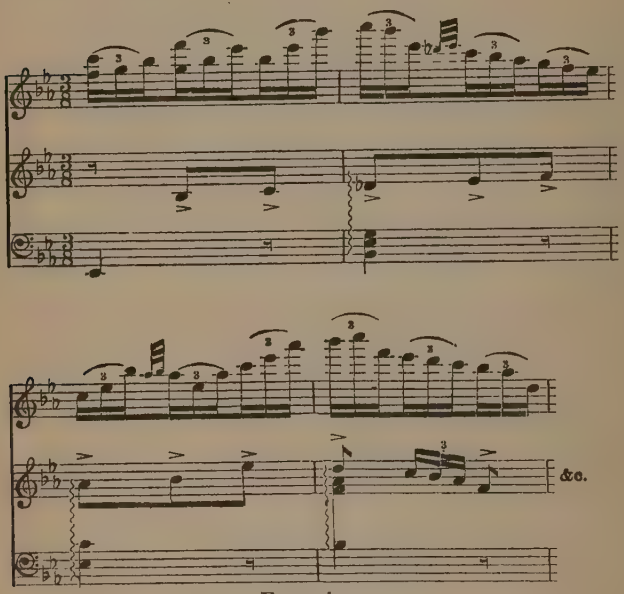


Example 39

(*See also Example* 40)

But bold as all this seems, Granados is still held fast by that tyrannous left hand that is answerable for so many of the pianoforte composer's troubles. He can only sketch out the basic harmony, striking a funda-

mental note now and then and leaving it to the pedal to sustain it. The piano-player could greatly enrich and expand all passages of this type; it could throw the extreme



Example 40

parts still farther away from each other, and give out the inner melody with harmonies of its own instead of, as here, only in a single line.

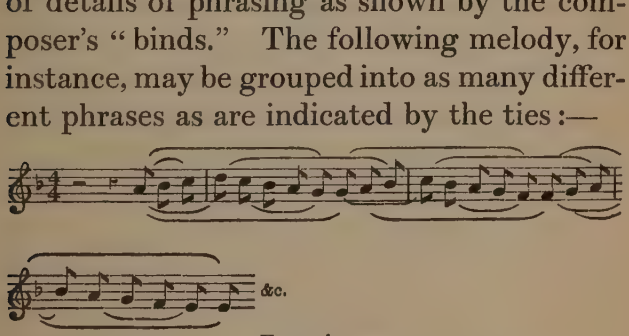
ix

But, of course, before the Chopin or Liszt or Albeniz of the future consents to write expressly for the piano-player he will want to be sure that the instrument can do justice to his music. Even if the instrument and the rolls were no better than they are now it might still be to his advantage to write for it. He would, as I have tried to show, have greater freedom of style. If his music were as difficult as most modern writing for the pianoforte is, he would probably be able to count on larger sales for a piano-player roll than for the printed copy. And in the matter of private performance he would be at anyrate no worse off than he is at present —indeed, he would probably be better off. But if the instrument and the rolls and the playing were all improved, he could face the new situation with equanimity, sure of a better average performance, of a bigger sale, and of a larger circle of appreciation. The question of the improvement of the instruments is one for the

mechanical experts and the manufacturers. The question of performance will be touched upon later in this volume. Upon the question of the improvement of the rolls a few words may be said in completion of the discussion in the earlier part of this chapter.

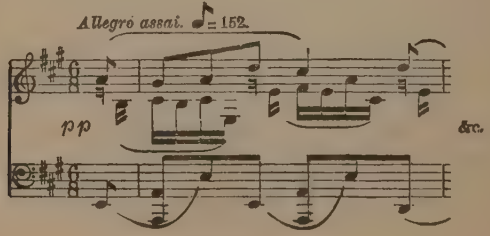
It is imperative that some means shall be devised for indicating the rhythm of the work throughout. One way would be to give the first and all subsequent time signatures and to indicate the bar-divisions. There might be difficulties in the way of this as a general practice. The same end could be obtained, however, by a proper use of the device known in connection with the pianola by the name of the metrostyle—the red line that the performer has to follow with the pointer in order to ensure his playing the work at the right pace and with the correct note-values. The musician looks upon the metrostyle line as only a rough indication of the metre of the piece; he permits himself a thousand deviations from it in order to obtain flexibility of rhythm. It follows, then, that the metrostyle line has only to be laid out

in the first place to correspond not merely to the *metre* but to a genuine *rhythmical* phrasing by a musician, for the means for an adequate performance—adequate, that is to say, as regards the rhythmic life of the work—to be within the reach of anyone who possesses such a roll. The cutter of the roll has always to remember that, in ninety-nine cases out of a hundred, the performer does not know the music from the score. He may have an idea of the rhythm as a whole, but he can have no idea of details of phrasing as shown by the composer's "binds." The following melody, for instance, may be grouped into as many different phrases as are indicated by the ties:—



Example 41

(with, of course, others not shown here, to say nothing of groupings that would make rhythms contradictory of the time-signature). It does not matter very much whether the

pianoforte player actually reproduces all the groupings of this sort that he sees in his score. He no doubt ought to do so, since the composer has put them there, and would not have put them there had he not wanted them; and it is imperative that the pianist should reproduce them if his hearers are to hear the work as the composer wrote it. But the vast majority of performances that take place in British drawing-rooms every evening are for the sole benefit of the amateur who is giving them. There are many things in the score that he only fancies he is reproducing in his playing. He may not have the technique for the effect: he may not have the musicianship necessary to play, say, two simultaneous parts in flatly contradictory rhythm. He comes across the following, for example, in Scriabine's *Prelude*, Op. 11, No. 7:—

Example 42

He finds some difficulty in reproducing really adequately the opposing rhythms of the two hands. If he is a sensible man, and, like a sensible man, is playing only for his own pleasure, he will not spend a great deal of time in trying to master the difficulty. When a composer writes a fiendishly difficult passage in, let us say, rapid chromatic sixths, he knows the trouble the ordinary amateur will have with it, and out of sympathy with the poor fellow presents him with an alternative version, containing, say, only the upper notes of the passage. The amateur plays these upper notes—and *imagines* the sixths beneath them. The same sensible fellow will call in his imagination to do the work that his muscles and nervous centres refuse to do in the Scriabine passage just cited; he will play the upper part in its proper phrasing, get as near the phrasing of the cross-rhythm as he conveniently can, and imagine the rest. He will be just as happy as if he had played it all to perfection.

But he is able to do this only because his eye tells him what the composer wanted. He is always deceiving himself as regards

his playing. His listeners often do not hear what he hears. He fancies he is reproducing this or that subtlety of rhythm or phrasing or dynamic nuance of the composer when really he is doing nothing of the kind. But though he deceives himself, it cannot be said that the truth is not in him. It *is* in him; his eye sees the intended effect, and, for him, the effect is there as truly as if he were reproducing it in his playing. The man who knows a work only from a piano-player roll, however, does not get this assistance to his imagination through the eye. The only course, then, is to put the effect in the roll for him. A system of showing the phrasing (say of passages like that of Ex. 42) by means of ties would probably be exceedingly cumbersome and confusing, because of the difficulty of identifying a note with a particular perforation. But there is nothing easier than to incorporate phrasing in the roll by means of the metrostyle. By the flicking of the *tempo* lever all degrees of retardations or accelerations can be obtained: this is the way, indeed, in which the musician phrases on the piano-player.

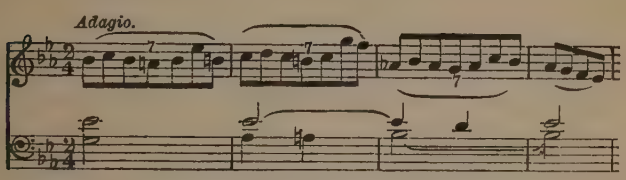
Nothing could be easier for him than to obtain any one of the phrasings shown in Ex. 41 or any one of a dozen other phrasings of the passage. But what he has to do for himself in virtue of his musicianship, his previous knowledge of the printed score, ought to be done for the plain man in the metrostyling. Since it is perfectly easy to obtain the right phrasing in cases where the right phrasing depends upon a grouping of the notes other than is suggested by the mere bar-divisions, the metrostyle line should do it all for the plain man. I do not contend that every subtlety of phrasing can thus be made easy. Cross-rhythms in the two hands would still be a difficulty: it would take very skilled playing to reproduce on the piano-player the proper effect of the passage last quoted from Scriabine, for example. In cases like this some guidance to the eye might well be given in the roll, as it is in the score, so that the piano-player performer, like the hand pianist, might, if the difficulty were insuperable, call in imagination to his aid. But apart from special problems of this kind, the proper

phrasing of melodies by means of the metrostyle should present no difficulties.

X

The roll, if I may be forgiven for saying so, ought to be fool-proof. It should be so cut that the least musical user of it ought to be able to get from it a rhythm really and truly corresponding to that of the composer, merely by following the red metrostyle line with the pointer. The simple, elementary, but vital fact should not be forgotten that no musician ever plays music precisely as it is written; and it is because the average roll makes the music sound precisely as the composer wrote it that it does not sound like the composer's music. The explanation of the paradox is that time is not rhythm. Time is only metre—the measuring-off of notes into units, doubles, triples, quadruples and so on. Play any piece of music merely according to the strict time-values of the notes and you get an effect like that of poetry being recited in a childish sing-song. No musician ever plays in that way. Put

the matter to a simple test. In the following well-known passage from the "Eusebius" of the *Carnaval*—



Example 43

since there are seven notes to be played against two, in strict logic the grouping ought to be $3\frac{1}{2}$ against the first crotchet and $3\frac{1}{2}$ against the second. The piano-player roll, being a strictly logical lunatic, phrases the passage just in that way, and the effect is comic. No player of any sense tries to play the passage like that. Whether it is conscious and deliberate on his part or not, his divisions occur either after the second or the third or the fourth or the fifth quaver, never so mathematically between the third and fourth notes as to create the horrid impression of $3\frac{1}{2}+3\frac{1}{2}$. The divisions are so very fine that the ear is not conscious of them as divisions: the seven notes in the right hand appear to be mathematically equal, as do the two

notes in the left hand. But that they are not mathematically equal is shown by the grotesque effect as soon as we hear them made rigorously so by the piano-player.

If all music were played in strict accordance with the time-values it would all sound as absurdly mechanical as this; and it is because the ordinary roll is cut with practically unflinching fidelity to the mere time-values of the notes that it *does* sound so mechanical. What we all unconsciously do—even the most "metronomic" of conductors—is to modify the strict values of the notes as we modify the strict value of the syllables in our ordinary speech. There are all sorts of pressures and relaxations, lights and shadows, accelerations and retardations, of which we are unconscious; we simply obey a profound instinct in these matters. When the instinct is that of a born master of rhythm, such as a Nikisch, a Pachmann, or a Beecham, there are variations of this sort in every bar, but so subtle that no instrument could measure them. I am not referring to *rubato* in the ordinary and broader sense of the term—

a departure from the basic *tempo* so marked that no one can fail to notice it. I refer to the thousand tiny departures from the *tempo* in every bar, of which the hearer is not conscious as departures, but which are none the less there, and, though he may not know it, are the secret of his delight in the great artists' playing. I was once discussing Pachmann's *rubato* with one of the greatest of living conductors, himself a consummate master of the device. He told me that no one could know how subtle Pachmann's *rubato* really is until he had had to accompany him in a concerto: the pianist seemed to be phrasing in strict time, yet he and the orchestra were perpetually at variance, however slight. It is this infinitesimal departure all the time from the strict values of the notes that makes the distinction between the playing of an artist and the playing of a human metronome; and it is because the average roll is cut metronomically that the piano-player sounds, in ordinary hands, like a machine.

xi

What can be done in the way of making a roll fool-proof is seen in some rolls recently issued by the Æolian Company. These are orchestral works by living composers; and the composers themselves have both arranged them for the piano-player and metrostyled them. In the note-arrangements they have gone on the principle that since (within the power of the pneumatics) the piano-player will play anything that is cut for it, there is no necessity to arrange orchestral scores for it, as these scores used to be arranged, on the principle of either the ordinary two-hand or the ordinary four-hand transcription. Knowing how their work is meant to sound on the orchestra, they have tried to get as near the same effects on the piano-player as the limitations of the pianoforte permit. The result is that in this respect alone they stand out even from the best of the older orchestral transcriptions for the piano-player. But they have another and still greater virtue. They have been metrostyled by the composers; and the plain man has

only to follow the red line to get a *performance*. The phrases come out with the time-values that would be given to them by the orchestra if the composer were conducting, not the mere metronomic note-values. Three rolls in particular—the *Pierrot of the Minute* overture of Granville Bantock, the *Concert Overture* of York Bowen, and the *Grey Galloway* of J. B. McEwen—seem to me to get about as near as we can hope to get at present to presenting the public with a roll that, without any special knowledge on their part, shall reproduce on the piano an orchestral work with something of the fullness and variety of effect and the flexibility of phrasing it would have in the concert room.

It is a pity that some of the composers of the past could not have been caught alive and induced to metrostyle piano-player rolls of their works. It would be particularly pleasant to have the vexed question of the true Chopin *rubato* authoritatively settled by no less a person than Chopin himself; or the problem of the change of *tempo* in the Scherzo of the Ninth Symphony solved for

all time by the one man who may be supposed to have known all about it. Certainly every living composer ought to be asked to supervise the rolls of his works. It is as true now as it was in the eighteenth century, though not quite in the same sense, that, as Couperin said, we write our music in one way and play it in another. Couperin referred to the traditions that had grown up of writing notes or dots of a certain value, whereas everyone understood that they were to be given quite a different value.[1] For us a minim is certainly a minim, and a dotted quaver a dotted quaver. But in spite of this, and in spite of the most minute markings by the composer, it is possible for an unimaginative person to go utterly wrong in his interpretation of a work—even in the mere matter of *tempo*. To be convinced of this, one has only to listen to the ordinary young lady's performance of Granados'

[1] The result is that the ordinary modern performance of many of the older works is a caricature that would not have been recognised by the composers. For a full and expert discussion of the subject see Arnold Dolmetsch's book, *The Interpretation of the Music of the 17th and 18th Centuries* (Novello).

The Maja and the Nightingale or Albeniz's *Evocation*. It would help people like this considerably if Granados or Albeniz had himself metrostyled a roll of his work.

Failing the composer, the roll should be metrostyled by some artist who knows the work thoroughly. There are many such rolls to be had, representing the "interpretation" of this or that pianist or conductor. But there are not enough of them. It should be a cardinal principle with the roll-makers that no roll should be put on the market until it has been passed by an expert. Many of the men whose business it is to check and supervise the rolls are excellent musicians, to whose knowledge and care the public owes more than it realises. But busy men cannot be expected to keep abreast of all the developments of modern music, or to have equal sympathy with, and equal insight into, all schools of composition. A thorough understanding of Albeniz's *Iberia*, the later preludes of Debussy, the later Scriabine sonatas, or the pianoforte works of Ravel's best period can come only to one who spends many more hours over them than

is possible to the professional roll-cutter, however conscientious and however fine a musician he may be. No matter how excellent the roll, something will always have to be left to the imagination and musicianship of the performer. But at least the roll can be cut and metrostyled in such a way that at any rate its general rhythmic contour and the details of its phrasing shall be those that an artist of the piano would give to it.

Careful metrostyling would no doubt do away with the necessity for most of the time signs, though the metronome number of the *tempo* should be indicated at the beginning of the roll, and here and there in the course of it, to provide, as I have pointed out already, against the day-to-day aberrations of the motor. Every sign—*dolce*, *maestoso*, *nobilmente*, and so on—that has to do with the spirit of the performance should be inserted; and notes that require sudden and marked emphasis should have an indication to that effect over them.

IV

HELP FOR THE PERFORMER

i

But even when the roll is as perfect as it can be made, the duty of the publisher to the purchaser is not wholly discharged. He has still to make the music as intelligible to the plain man as human ingenuity can make it; for it must never be forgotten that nine-tenths of the users of the piano-player are people with no particular musical education apart from what they may have picked up from their instruments and in the concert room. It is hardly a figure of speech to say that the piano-player puts the bulk of the finest of the world's music within the reach of everyone: he can have not only pianoforte music pure and simple, but arrangements of chamber music and organ music and orchestral music of every kind, as well as accompaniments to songs and solo instruments. But it is folly to put before him a jumble

of every school, every period, every style, every genre, without trying to give him something of the same understanding of them and the same discrimination between them that the more cultivated musician gets from his teachers or his books. It is possible to exaggerate the importance of technical knowledge to the enjoyment of music. But it is certain that *some* technical knowledge is necessary for the full enjoyment of certain kinds of music, and equally certain that this amount of knowledge could be communicated in a few hours by anyone who knew how to teach to anyone who knew how to learn. There is no need for the plain man to know all the niceties of fugue or the whole history and all the varieties of sonata form. But if he is to get anything like the full value out of a sonata or a fugue he must have a general idea of what a sonata or a fugue is; and this general knowledge, dealing only with the fundamentals of the subject, could be made clear to any ordinarily intelligent person in a very little time.

It is a pity that makers of piano-players do not produce a series of booklets explain-

ing such matters as these, in language as little technical as possible, and with detailed reference to typical works. Nor is there any apparent reason why every roll should not run to an extra foot or so of paper, on which could be printed so much explanation of the music as was necessary to give the plain man a better understanding of it. If it were a fugue or a sonata, the main structural features of it might be described, perhaps with musical examples; or a commentary could run the whole course of the roll, showing where subjects entered and what was done with them, where the episodes came, where exposition, working out, recapitulation, coda and all the rest of it began and ended, and so on and so on.

In the case of all music that has a poetic basis, some account of this basis should be given. If *Till Eulenspiegel* or *Francesca da Rimini* is played in the concert room, there is an analytical programme to guide the hearer through all the stages of the story and make the personages and their adventures clear to him. If assistance of this kind is necessary when the work is being performed

by an orchestra and a conductor who know what it is all about, and do everything they can to enlighten the listener, how much more necessary is it when the listener is his own performer? There are many rolls that, even when one knows the poetic basis of the music, do not at first make themselves clear. If that be so in the case of the musician who probably knows the score by heart, what is likely to be the state of mind of the plain music-lover who knows no more of the work than what his piano-player tells him about it? We may take it that every musico-poetic work that requires an analytical note in a concert programme needs a similar elucidation in the case of the piano-player. What, for instance, could the average man make of a concert performance of *Petrouchka* or *L'Oiseau de Feu* unless the characters and the action of the ballet were explained to him? All works of the programme music genre should have a preliminary explanatory note on the roll; and anything of particular significance in the course of the development of the music should be further noted as it occurs. Thus besides the general

preliminary explanation of *Don Juan* there should be indications in the roll itself of the various characters who appear in the story as they enter, the various adventures of Don Juan, and of the significance of such effects as that descriptive of the duel and of his death. Every stage of the adventures of Till Eulenspiegel or Don Quixote or Falstaff or Faust or Romeo and Juliet should thus be made clear to the player. As it is, he is left without the slightest guidance, sometimes with disastrous results. I remember a roll of the scene of Orestes' appearance before his sister, in Strauss's *Elektra*. Even with a knowledge of the score it was difficult to make head or tail of it; what it must have sounded like to some simple soul who knew nothing of the opera, who had not the faintest idea who the characters were or what they were talking about, I shudder to think.

ii

Further, some assistance should be given to the plain man in his choice of rolls. To this end I would suggest to the publishers

first of all the desirability of some system of *grading* modern music in their catalogues. The publishers of printed music have long followed the practice of grading their wares, for the benefit of intending purchasers, as "easy," "moderately difficult," "very difficult," and so on, according to the degree of technique that they demand. Piano-player rolls do not need to be graded according to difficulty of performance, for the instrument attends to all that; but they might with advantage be graded according to the difficulty of appreciating them. I know that in detail such a system of grading would confront us with a multitude of problems. We should be dealing with matters of taste, temperament and culture; and it is obvious that what might be hard for one man to understand might be as simple as lapping milk to another. But a rough-and-ready grading system can and ought to be introduced for the guidance of the plain man through the newest music, for without such a system it is certain that he is as likely as not to make an initial blunder that will prejudice him against a fine composer for

years. Let us say, for instance, that he has heard of Debussy, and thinks he would like to become acquainted with his music. He sees that Debussy has written some preludes; and as his experience of preludes, from Bach to Chopin and from Chopin to Scriabine, has been rather agreeable, he decides to try one or two of Debussy's. So he gets *La Cathédral Engloutie* or *La Terrasse des Audiences du Clair de Lune.* These are remarkable works, but they need extremely skilled playing—especially on the piano-player—and some understanding of Debussy's later style in general. Our friend succeeds only in drawing some chaotic noises out of his piano-player; and he begins to have his doubts about Debussy. These doubts are confirmed after he has floundered about helplessly through *Jeux,* which he has chosen because it is a ballet, and he thinks a ballet, at any rate, ought to be pretty straightforward. And if, after that, he were to have the ill-luck to try a piano-player arrangement of the 'cello and piano sonata, he would probably forswear Debussy for the rest of his life.

If this sort of thing happens—and who can doubt that it happens frequently?—the makers have only themselves to blame. A new composer like Debussy should be graded for the users of the piano-player. His work should be sorted into three groups. The first would contain some works of his earliest period—such things as the *Two Arabesques*, the *Petite Suite*, and the *Suite Bergamasque*, that could present no difficulties to anyone. When the plain man had assimilated some of these, he would be in a position to grasp such things as *L'Isle Joyeuse*, *Jardins sous la Pluie*, and *Soirée dans Grenade*; and after these, but certainly not before, he might try more recondite pieces like *Poissons d'Or* or *Et la Lune déscend sur le Temple qui fut*. From these he might progress to the less immediately comprehensible works of Debussy's last period, which again ought to be graded for him. A prelude like *La Fille aux Cheveux de Lin* would give him no trouble; but it is no use setting him to play such things as *La Cathédrale Engloutie* or *Canope* or *La Terrasse des Audiences du Clair de Lune* until he can play *Danseuses de*

Delphes with complete intelligibility both to himself and to others. So with Ravel, Albeniz, Bela Bartok, Scriabine and other modern composers. Every care should be taken by the makers of the rolls that the plain music-lover does not conceive an unreasoning and lasting prejudice against a composer simply through beginning his acquaintance with his work at the wrong end.

iii

It is surely strange, too, that the publishers of piano-player rolls should not have seen before now that in the modern world a music roll is on precisely the same footing as a piece of printed music in its need for publicity by means of the review. The average concert or operatic audience is always at least a generation—perhaps two—behind the times in its knowledge of music. That backwardness has more than one cause and more than one result. In the literary world the average intelligent man can keep himself fairly up to date without any difficulty. He does not wait to read a novel by Mr Wells

or Mr Conrad, or the latest book on Shakespeare, or the latest volume of Mr Yeats, until it is ten or twenty years old. Even if he does not read the book itself he knows of its existence, and can get a fair idea of its contents, from the newspaper or magazine reviews. But the average music-lover is rarely less than twenty years behind the times in his knowledge of music. The newest opera he knows is perhaps *Louise*, which was produced in 1900, or *Madam Butterfly*, produced in 1904. The "newest" orchestral works that he hears (I am speaking now of the country as a whole, not of London—indeed, not of the country as a whole, but only of a dozen or so of the largest towns) are mostly old works that have at last filtered through to him—middle-period Debussy or Strauss or Scriabine. Of the vast treasure of European song and pianoforte music that the last ten or fifteen years alone have endowed the world with, not a hundredth part of one per cent. is ever heard in the concert room or the average home. One reason for this sorry state of affairs, I think, is the mistaken notion that is every-

where held as to the function of musical criticism. So long as the critic is supposed to have no other *raison d'être* than to write about the performances of all sorts of unimportant people, so long will our musical culture be as backward as it now is. We can imagine what would be the state of our literary culture by now had the literary magazines, instead of reviewing new books, restricted themselves mainly during the last fifty years to reporting elocutionists' recitals and penny readings. One sure way to broaden the musical culture of the country is for the critics to talk less about performers—who in most cases really do not matter very much—and more about music; and above all, for those who keep abreast of the new movements in music to do what they can to communicate their knowledge to the public.

In a word, the newspapers should devote more space to the reviewing of new music, and the publishers and composers should see to it that every facility is given to the critics to do this most necessary work. Foreign publishers in particular are inclined

to forget that as music is an international art, their publications should be sent regularly for review to the leading newspapers of the whole world, not of their own country alone. They no doubt feel, in many cases, that to do so would be a mere waste of copies : the chances are against an operatic or orchestral score getting into the hands of a critic who would be capable of judging it from a mere reading of it. But to say that is really to condemn the present system of musical criticism. The musical critic of a paper ought to be as capable of reviewing new music of every kind and of every degree of difficulty as the literary critics are of reviewing new books. At present the music that reaches a newspaper for review is mostly of the feebler commercial sort, that no self-respecting paper would waste an inch of its space upon, and no self-respecting critic five minutes of his time. If the whole tone of newspaper musical criticism were raised, publishers and composers could with confidence send out their better wares broadcast for review. They could afford to risk publishing more music of the better kind, because

they could be sure of the same publicity being given to it by the musical reviewer as is given by the book reviewers to the better literature of the day.

iv

As I have already remarked, the piano-player roll stands in as much need of intelligent reviewing as the printed score does. It has, one might almost say, even a higher claim; for there can be little doubt that more people have learned something of great music during the last ten or fifteen years through the piano-player than through printed music. I have no hesitation in saying, from my own experience, that the average of knowledge of out-of-the-way music is higher among the possessors of piano-players than among professional musicians. I have frequently been surprised to find that a man who can hardly play a page by hand is familiar with a number of new piano works about which the ordinary pianoforte teacher and pianoforte student know nothing, while he also learns through his

piano-player many an orchestral or chamber music work in which the professors or students of single instruments seem to take no interest. But the people who acquire this knowledge are, as a rule, the adventurous souls who are always keen for a new experience. The majority of the devotees of the piano-player need some guidance before they adventure. The plain man cannot be expected to have an intimate knowledge of all the "values" in the musical world. All quite new names, especially those of foreign composers, mean just about as much or as little to him. How, indeed, can it be otherwise? He looks through the monthly bulletin of rolls: how is he to distinguish between an Albeniz and an Agosty, between an Arensky and an Alexandrov, between a Balakirev and a Barbirolli, between a Dargomijski and a Dell' Acqua, between a Prokofiev or a Palmgren and a Piccolomini, between a de Falla and a Leo Fall, between a Jonas and a Johnson, between a Sibelius and a Schneider, between Enrique Granados, who was a man of genius, and Denis Granado, who is a nobody? How

is he to know, among all the unfamiliar names that assail his eye, who are the people who count and who are the people who do not?

How is he to know that if he will only play once or twice through Albeniz's *Eritaña* or *Triana* he will become as fond of it as he is of his favourite Chopin works, and that thereafter he will not rest until he has as many of the other *Iberia* pieces as are cut for the piano-player? Why should he not become as accustomed to looking to the musical column of his newspaper for guidance in these matters as he now is to looking to the literary columns for guidance as to his choice of books? And how is he to do this unless the publishers of the rolls awake to the infinite possibilities of this new factor they have introduced into music, and afford the musical reviewers the chance of mediating between themselves and the musical public in the way that the literary reviewers mediate between the book publishers and the reading public? It has been already pointed out in the foregoing pages that before very long the newest pianoforte

music will be unplayable except by a virtuoso here and there. Without the piano-player the present gulf between the composer and the public—wide enough, in all conscience—is bound to widen more as the years go on, till, in a little time, there will be practically no communication between them. The great concert pianists are of little or no use to the public in this respect; they mostly seem to go through life with the conviction that, apart from a few little things by Cyril Scott, Debussy, Macdowell, Scriabine, and one or two others, nothing has been written for the piano since Chopin and Schumann and Liszt. Already the habitual user of the piano-player—I speak from a wide experience of him—can hardly be induced to go to a piano recital, for he knows that he will not hear a note of the new music he most desires to hear. His knowledge of modern music, indeed, is often far greater than that of the pianist. The piano-player is, and will be still more so in the future, the one means by which the vast army of progressive enthusiasts can keep their knowledge of music up to date. But they will

more and more need guidance among the crowd of new names and new works: and for this they have a right to look to their daily newspaper as well as to the specifically musical Press.

V

THE VALUE OF THE PIANO-PLAYER AND THE GRAMOPHONE TO MUSICAL EDUCATION

i

THOUGH I have urged thus strongly the claim of the piano-player to be taken more seriously as an artistic performing instrument than it mostly is at present, it is mainly for other reasons that I welcome it and hope to see an enormous extension of its vogue. I do not propose that people should give up playing by hand. Perhaps it is only due to old happy associations, but certainly many people get a more intense pleasure at present by playing moderately well in the usual way than by playing superlatively well with the piano-player. I am wholly opposed to the ordinary amateur wasting as many hours a day as would be necessary for him to acquire a technique equal to every demand that modern music can make on it. But with quite a moderate

technique he can get a great deal of pleasure out of his pianoforte; and I believe the happiest amateur musician to-day is the one who combines hand-playing with the use of the piano-player. The great value of the new instrument is not that it allows the performer on it to compete with the pianist for show purposes, but that it puts the best of the world's music within the reach of everyone. It is in this way, not by its competition with the professional soloist, that it is going to be a tremendous educational force in the musical life of the future.

The fear is sometimes expressed that the piano-player will diminish musical culture of the more intensive sort by making mere performance too easy. I believe that fear to be groundless. People who suffer from it are confusing, I think, pianoforte technique with musical culture. There is nothing in technique itself that will make a musician of any man; he may spend three months in overcoming the difficulties of double thirds and sixths, and be as ignorant of *music*, as destitute of musical feeling, at the end of that time as he was at the beginning.

Nay, the excessive time he has to devote to practice if his technique is to be anything above the ordinary must necessarily deprive him of so much time in which he might be making an all-round musician of himself. I have had considerable experience of pianoforte students at conservatoires and in private, and I can testify that ninety-nine per cent. of them are deplorably ignorant of music. They play a dozen or two famous works moderately well; outside these they know next to nothing of music in general or of pianoforte music in particular. They do not even play their own "pieces" in a way that any musical person can bear to listen to. As I write these lines, a young lady (I am sure it is a young lady!) in a house a few doors away is playing the finale of the *Moonlight Sonata* (with the windows open, of course, for the benefit of the neighbours), as she has played it every morning for a fortnight. Every morning she makes just the same mistakes; every morning she is pulled up dead at the same place and has to begin again; every morning she shows that she has no more idea of Beethoven in

her than a coal-heaver has of Keats. She will go on murdering the *Moonlight Sonata* in this way for heaven only knows how many more mornings; but if she went on to the ultimate morning of the world she would never be able to play it. Her musical faculty has been dried up from childhood by incessantly thinking of the notes and never of the music. Had her parents bought her a piano-player in her childhood, instead of sending her to "learn the piano," there might by now be a different story to tell. Instead of a profound ignorance, acquired by prolonged and painful labour, of the last movement of the *Moonlight Sonata*, she might have had a profound knowledge of every one of Beethoven's sonatas, and of many another masterpiece besides.

ii

Is it feared that by relieving a man of the burden of pianoforte practice we shall deprive him of all desire to understand the structure of music? I should say that if he has no desire to learn anything of this,

practising finger exercises for five or six hours a day will not give him the desire; while if he is really anxious to master the forms and the history of music, anything that will relieve him of the necessity for hours of tedious practice will necessarily give him more time for genuine study. After all, far too much stress is laid upon form and structure and harmony and counterpoint and all the other technical matters in which unwilling boys and girls are needlessly coached in order that they may be given worthless certificates. For the composer, study and plentiful exercise of the technique of composition are, of course, indispensable. For the ordinary listener—and it is more good listeners that we want, rather than more average performers or second-rate composers—very much less than this will do. You cannot compose unless you have ideas; and it stands to reason that the ordinary man or woman has no ideas, or none worth putting on paper. Filling up music paper in accordance with the rules of the text-books is not composition; it is only playing a dull game according to the

rules; and it is a waste of the average student's time to put him to work at this kind of thing. He should be trained to listen, not to play foolish technical games and imagine he is making music of his own. He cannot invent harmonies, cannot think harmonically on his own account: that is given only to the genuine composers to do; and if he is not born a harmonic thinker, no amount of teaching will make him one, just as no amount of dabbling in poetry will make a poet of a man if Providence has not seen fit to make him one already. What the average music-lover wants is not to be encouraged in the delusion that he can write harmony, but to be trained to hear and understand harmonically.

Now to hear harmonically it is not necessary to know the name of a single chord or to be able to analyse one. If it were not so, concerts would be impossible; for not one auditor in a hundred has any technical knowledge of the harmonies he is listening to—which fact, however, does not prevent his understanding all that the composer is saying to him through his harmonies. To

hear polyphonically is largely a matter of practice; and the plain music-lover will get better practice of this kind by playing fifty Bach fugues on his piano-player in four hours than in giving these four hours to mastering certain technical difficulties and then writing a bad fugue of his own. The basic principles of the fugue form, sonata form, etc., etc., can be made clear to any man of average intelligence in a day. After that, all he has to do is to get into direct contact with as many sonatas and symphonies and fugues as possible. Which is the more likely to help him in this—the living voice of Bach and Mozart and Beethoven and Brahms and Franck and Elgar speaking through his piano-player, or hours and days of dreary practice at the finger difficulties of one work? In a word, the only way in which the piano-player will "make music easy" is by opening out the whole world of great music to unskilled music-lovers, and letting the composer speak to them direct instead of through the mouth of some pedant of the class-room or the text-book, who at best can show them nothing but the

skeleton of a work. The ordinary music-lover has no use for Prout or Jadassohn; he has every use for Bach and Beethoven. The text-books and the professors only teach "form" because the spirit is unteachable. No great musician ever was, or ever will be, great in virtue of what the text-books call his form. Any numskull can reproduce the form of any work whatever, simply by planning his sections, his repetitions, and so on, in the same order and on the same scale. He can copy the form of a Beethoven *allegro* to a hair's-breadth by using the same number of themes and figures as Beethoven, cutting them to the same size and pattern, going up when Beethoven goes up, and down when Beethoven goes down, modulating when Beethoven modulates, entering upon his working out, his recapitulation, and all the rest of it at just precisely as many bars' distance from the commencement as Beethoven does, and adding a coda of the same length and build as Beethoven's. But his work would be no more like Beethoven's than an isosceles triangle is like the west pediment of the Parthenon.

Beethoven's greatness is not in his form, which the smallest of us can copy, but in his ideas, his emotional logic, his architectonic power, which are beyond us all. The plain man, then, need not trouble himself overmuch about matters of musical form. In a few hours he can learn all that any of us know—all that Bach and Beethoven themselves knew—of the broad principles of scaffolding upon which all coherent music must be built. The rest is merely the superimposition upon that scaffolding of infinitely varied designs in correspondence with the infinite variations of human feeling; and all these he will best learn at first hand from the great men who have made our music. There is, indeed, no other way of learning it.

The piano-player places the possibility of this knowledge within the reach of every man; for the strong point of the instrument is that it opens out to the non-technical lover of music not only pianoforte music, but organ music, chamber music, and orchestral music, in the form of arrangements. It opens out to any ordinarily good singer

the great song literature of the world by placing the most difficult accompaniments at his service. It can really do far more for him than the usual arrangements of orchestral and other works for the pianoforte have ever done or will ever do for the best pianists. There are limits to human technique. There are no limits to the technique of the piano-player. I see no limit to the good work of the piano-player. It will make plain people lose their irrational terror of good music by the simple process of repetition, for it is repetition, more than anything else, that purifies the taste of the piano-player user. At present a vast amount of mere rubbish is cut for the instrument. But every roll-lending library tells the same tale of a steady improvement in the taste of those who have used it for some time. People begin with rag-time, go on to musical comedy, and from that to classical music. The rubbish simply cannot stand the amount of repetition it gets. And while the piano-player is thus making good music a daily reality to thousands who would otherwise be barred from it, it is call-

ing out unsuspected interpretative talent in many people. I have met with men without the slightest pretension to any book knowledge of music, who yet can play their Chopin or their Schumann with astonishing fire and understanding. All this is bound to have its effect in time. The piano-player will bring about a great many changes in our musical habits during the next twenty years or so, but that its influence will be overwhelmingly on the good side I do not see how any unprejudiced person can doubt.

iii

Its educational influence ought not to end in the home. The piano-player and the gramophone should be in every school. In the nature of the case comparatively few people can hope to become executants, and only a favoured few can hope to become skilled executants. But everyone can become a listener; and it is first-rate listeners, rather than second-rate or third-rate performers, that this and every country needs. The problem of concert-giving would solve

itself if only we had audiences. We have such poor audiences because nine people out of ten are literally afraid of good music—anything "classical," as they put it. They associate it with the painful drudgery of their own or some other member of the family's young days; they assume that only people who have gone through this drudgery are competent to understand "classical" music, and that to listen to it demands an intellectual effort as severe as the physical effort of "learning to play the piano." Get a man of this sort to a high-class concert or two, and he soon discovers that there is virtually no music the understanding of which is beyond him. The only difficulty is to overcome his first shyness of "classical" music. The best time to overcome this, as all other forms of shyness, is in childhood. Music should be made a joy to school children, not a terror. Good wook is being done in many elementary schools in the way of ordinary musical education; and no one wants to see the children deprived of opportunities to learn to read music and to sing in parts. But this is only a fraction of

what ought to be done, and could easily be done with the aid of the piano-player and the gramophone.

The best way to learn to speak a language is to live in the country where it is spoken and practise it daily. The best way to get the language of music into your bones is to grow up with it. To the average child the school presents more opportunities for this than the home. But the amount of music the child can learn through his primitive part-singing is very limited; whereas through the gramophone and the piano-player he could learn a great deal of the finest music of the world. With these two instruments, music in the schools would no longer be at the mercy of a teacher of limited technical attainments. A child in the remotest districts would be able to hear finer music and greater artists than was possible twenty years ago in most English large towns. His ear would be trained by the gramophone to appreciate beauty and splendour of tone and the niceties of style; a quarter of an hour of the piano-player each day would give him, in a few years, a repertory

that his father could not have acquired in half-a-century. The musical habit would be unconsciously formed in him, and he would have none of the horror of a "classical" concert that the average man has to-day. All the great names and many of the great works would be familiar to him.

It is the gramophone's good luck that it plays itself. The piano-player, unfortunately, does not. It can be played excellently or vilely; and if it is played vilely, as it generally is, musicians are quite rightly horrified by it. But there is no real need for it to be played as badly as it is in most homes. The remedy is obvious. The pianoforte would be played even worse than it generally is at present if everyone taught himself; and the main reason for the badness of the average piano-player performance is simply that the performer has never been taught how to play. It is too readily assumed that all one has to do is to put on the roll and grind away. As a matter of fact, it takes some time and trouble to play the instrument well—to get full control of

levers and pedals, so that every variety of touch and accent is at your command, to understand the idiosyncrasies of the instrument, to phrase elastically, to know the work in the roll as well as you know it in the score, and in general to get a "reading" as distinguished from a mechanical metronomic performance. There really ought to be teachers of the piano-player as there are of the piano. The makers have been curiously careless in this matter: one would have thought that, in their own interests, they would have seen to it that the purchaser had opportunities to learn how to get the best out of the instrument. There is surely a new vocation here for musicians. The pianoforte teacher sometimes expresses the fear that the piano-player will one day take his means of livelihood from him. There is little danger of that; but there is no denying that the large numbers of piano-players now in use have created a new factor in the world of music, and the shrewder musicians will no doubt see the possibilities of it. If the time ever comes when nobody wants to learn to play the piano by hand because

everybody has a piano-player, then all the teacher will have to do is to teach the piano-player instead of the piano. A musician could not merely show the plain man all the subtleties of pedal touch and lever touch; he could coach him in the performance of his favourite pieces, explain them to him, mark the rolls for him, turn him from a mechanician into an interpreter.

A few years ago I diffidently threw out the suggestion that some of the more enterprising Competition Festivals might try the experiment of a class for piano-players. The suggestion was received with stony silence by most of the committees. Others gravely informed me, in the best official style, that they could not see their way to include such a class at present. One secretary wrote that the proposal had been energetically discussed by his committee, and that someone had described it as plunging into "a sea of mechanical emotion." I have not a very clear idea as to what the gentleman meant; but if there *is* such a thing as "mechanical emotion," some people

would say there was plenty of it to be found in the piano classes at the Competition Festivals. The majority of the young people who take part in these classes are obviously on the wrong path, have little notion of the meaning of what they play, and cannot be given any notion in the little time the adjudicator has at his disposal. It is the old story: these young people are so befuddled with technical exercises that they cannot see their music as music. The piano-player would enable any genuine musician there might be among them to develop his musical instinct to the full. Would it not be at least as interesting, and as beneficial to the cause of music, to set some of these students competing against each other as interpreters, as it now is to hear a number of poor technicians, without any feeling for music, competing on the barren field of mere technique?

Another worried committee-man wrote thus: "It would be a delightful variant, but who is going to supply our competitors with the necessary piano-players? They are hardly in a position to pay for

pianos, let alone piano-players. Even your humble servant does not feel justified in paying the necessary price. It is as much as he can afford to provide a Broadwood upright for his struggling family. Have you any alternative method to propose?"

This was really touching; but the case for a Piano-Player Competition is not quite so hopeless as all that. If I had suggested the inclusion of a contralto solo class at this particular Festival, and the committee-man had turned on me with the plaintive objection, "But it isn't every girl who has a contralto voice; some girls haven't a voice of any sort," I should have taken him gently by the hand and pointed out that his committee, being composed of men of commanding intelligence, would see at a glance that the contralto solo competition was not intended for the girls who hadn't contralto voices, but for the girls who had. Similarly I do not suggest a Piano-Player Competition for people who haven't piano-players, but for people who have. Strange as it may seem to Competition Festival

secretaries, there really is a large number of these instruments in the country—many thousands of them, at the least. Of course the proprietors of them are not likely to take up their piano-players and walk to the Competition Festival unless and until they are invited to do so. Even the gay adventurous fox, yearning for a day's sport, does not walk into the kennels and implore the dogs to hunt him. He politely waits until an invitation reaches him. If the Festival Committees wish to see what sport the owners of the piano-players can give them, they must really invite them to come out into the open. There can be little doubt that in a very short time a class of this sort would attract a large number of competitors. Its influence would certainly be for good. Needless to say, it would be advisable not to have as a test piece any work that to the hand-pianist would be of merely technical difficulty. The test should be one of expression, of control of nuances. To play, say, one of the more elusive or atmospheric of Scriabine's works on a piano-player would be a very severe test;

at any rate, from the audience's point of view, it would be more interesting than some forty or fifty little girls rattling through the *Spring Song* or *The Happy Peasant.* A competition of this kind would certainly demonstrate to everyone, performers and listeners, the necessity for learning the piano-player as one learns the piano.

If people would only work at the instrument, and if only there were teachers to show them how to make the best of it, there ought to be a future for the piano-player as a concert solo instrument in the smaller towns and villages. Since there is no village so small that it does not want music occasionally, but many villages are too small to be able to afford to pay a first-rate pianist to give a recital, the music in these places is bound to be generally bad. Would it not be better for a village audience to listen to an evening of the finest music played as well as the piano-player could do it than to listen to the unmusical performances of the vicar's daughter or the local music teacher? A friend recently suggested

taking music into the remotest parts of the country—into districts that have perhaps never heard even a pianoforte *badly* played —by touring with a piano-player on a small motor car. One can imagine less intelligent forms of philanthropy than the endowment of a little scheme of this kind. It would be the means of giving recreation and education to thousands of humble folk who at present have no idea of the beauty from which they are shut out by their poverty or their remoteness from the larger haunts of men. But always we are forced back to the problem of performance ; and we realise more and more the need for efficient teachers of the piano-player, and for educative work on the part of the makers of the instruments and the publishers of the rolls. Long as the piano-player has been before the public, it is still only in its infancy both as an artistic and an educative force. But that the piano-player and the gramophone can be made two of the mightiest of the musical forces of the future no one can doubt. All that is needed is that the various education authorities shall realise the great possibilities

of them, and that the manufacturers shall realise that it will ultimately be good business to look a little further and a little more idealistically than business men generally think necessary.